

APPENDIX REPORT

Project No.	SHT1910051706EW	Radio Specification	WIFI 2.4G
Test sample No.	YPHT19100517003	Model No.	YJCC002
Start test date	2019/11/16	Finish date	2019/11/16
Temperature	25°C	Humidity	50%
Test Engineer	JiongSheng.Feng	Auditor	<i>William.wang</i>

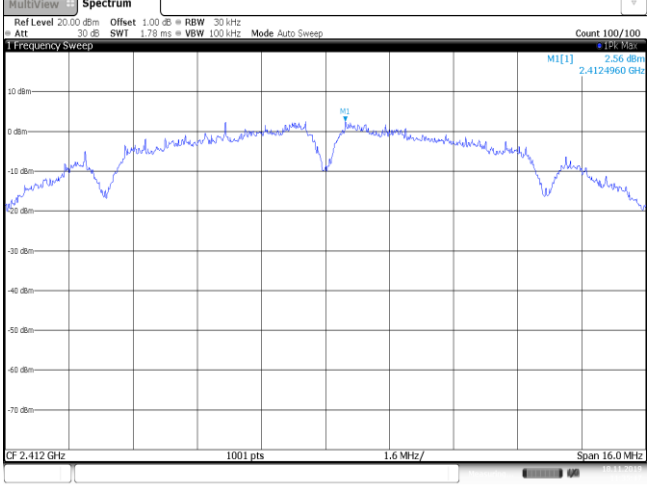
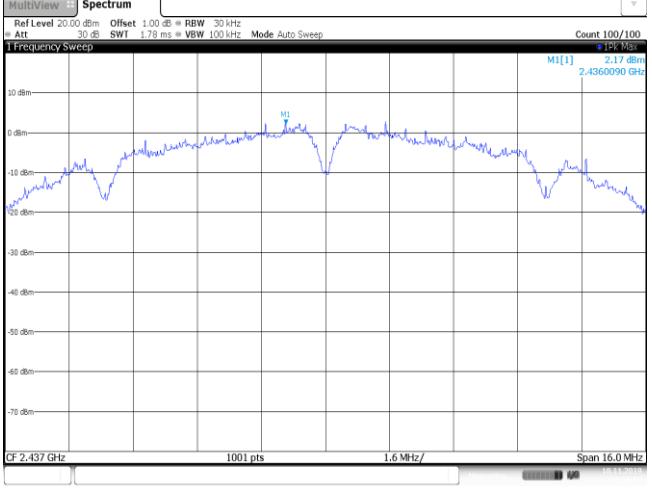
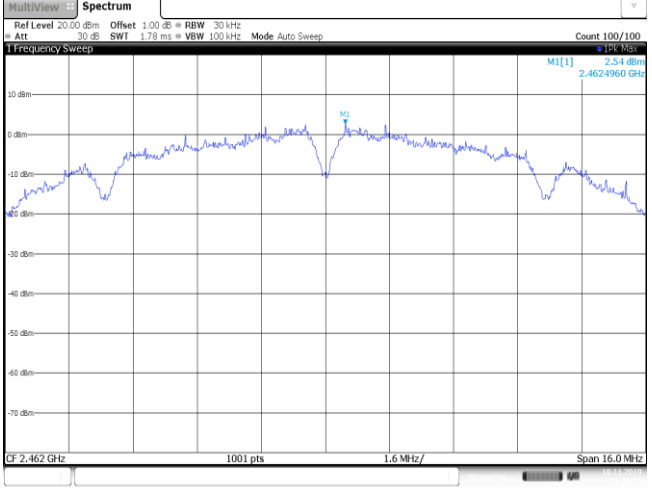
Appendix clause	Test item	Result
A	Conducted Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty Cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

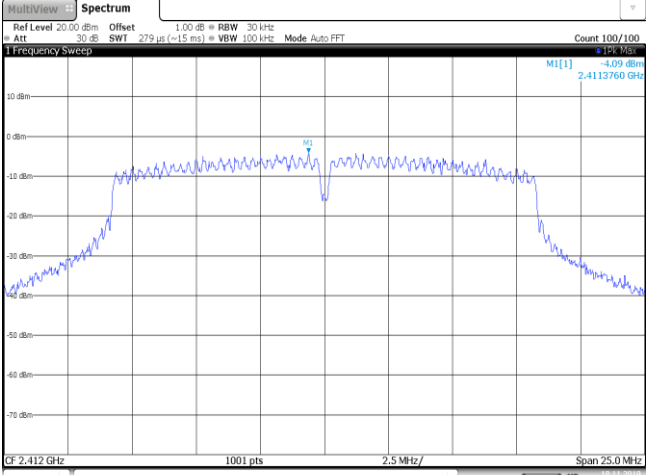
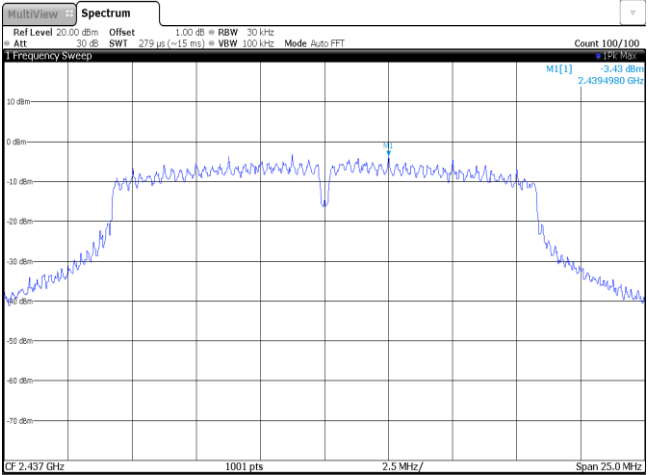
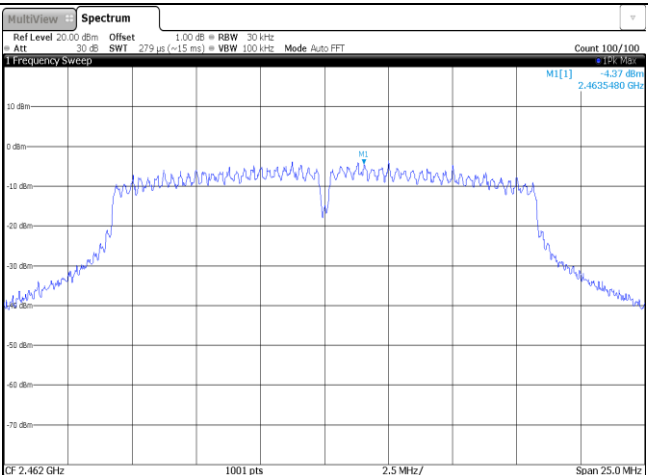
Appendix A: Conducted Peak Output Power

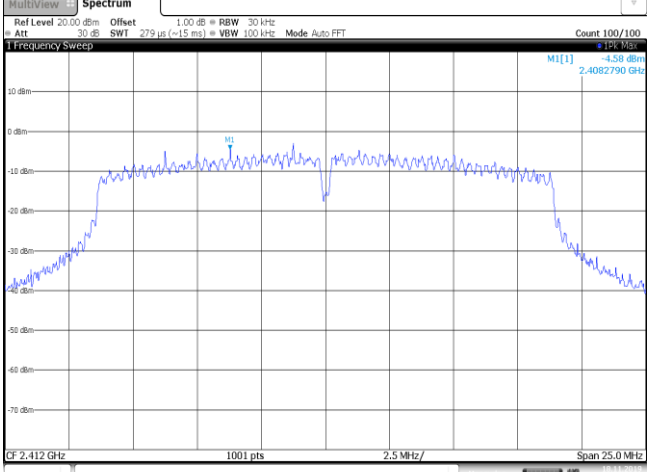
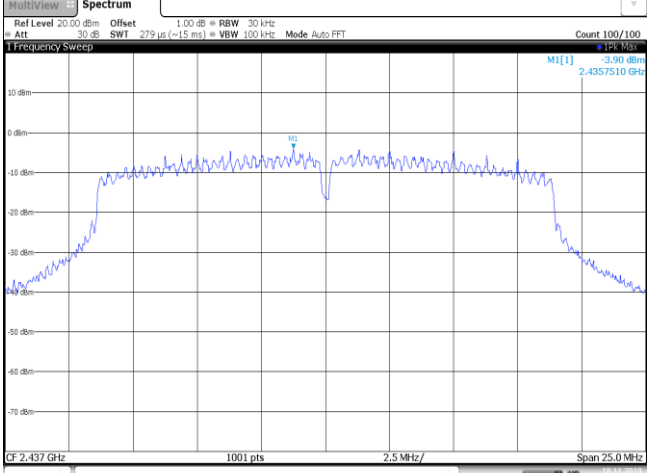
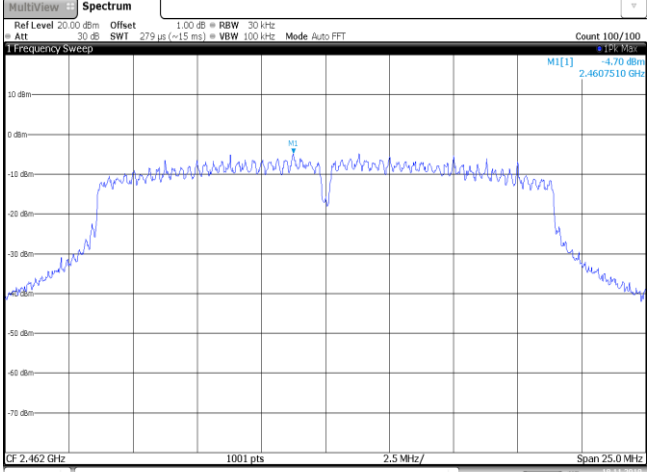
Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
802.11b	01	17.77	15.82	≤30.00	Pass
	06	17.57	15.63		
	11	16.84	14.38		
802.11g	01	21.04	18.46	≤30.00	Pass
	06	20.53	18.11		
	11	20.11	18.03		
802.11n(HT20)	01	20.37	17.94	≤30.00	Pass
	06	20.40	17.86		
	11	19.43	17.58		

Appendix B: Power Spectral Density

Type	Channel	Power Spectral Density (dBm/30KHz)	Limit (dBm/3KHz)	Result
802.11b	01	2.56	≤8.00	Pass
	06	2.17		
	11	2.54		
802.11g	01	-4.09	≤8.00	Pass
	06	-3.43		
	11	-4.37		
802.11n(HT20)	01	-4.58	≤8.00	Pass
	06	-3.90		
	11	-4.70		

Type:	802.11 b
CH01	 Ref Level 20.00 dBm Offset 1.00 dB RBW 30 kHz Att 30 dB SWI 1.78 ms VBW 100 kHz Mode Auto Sweep Count 100/100 MI[1] 2.56 dBm 2.412960 GHz Date: 18/NOV/2019 11:35:46
CH06	 Ref Level 20.00 dBm Offset 1.00 dB RBW 30 kHz Att 30 dB SWI 1.78 ms VBW 100 kHz Mode Auto Sweep Count 100/100 MI[1] 2.17 dBm 2.4360090 GHz Date: 18/NOV/2019 11:38:02
CH11	 Ref Level 20.00 dBm Offset 1.00 dB RBW 30 kHz Att 30 dB SWI 1.78 ms VBW 100 kHz Mode Auto Sweep Count 100/100 MI[1] 2.54 dBm 2.4624960 GHz Date: 18/NOV/2019 11:40:51

Type:	802.11 g
CH01	 The spectrum plot for CH01 shows a signal centered at 2.412 GHz. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in MHz, with a span of 25.0 MHz. The signal is a narrowband peak with a peak level of -4.09 dBm. The plot includes a frequency sweep and a count of 100/100. Date: 18.NOV.2019 13:21:38
CH06	 The spectrum plot for CH06 shows a signal centered at 2.437 GHz. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in MHz, with a span of 25.0 MHz. The signal is a narrowband peak with a peak level of -3.43 dBm. The plot includes a frequency sweep and a count of 100/100. Date: 18.NOV.2019 13:36:22
CH11	 The spectrum plot for CH11 shows a signal centered at 2.462 GHz. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in MHz, with a span of 25.0 MHz. The signal is a narrowband peak with a peak level of -4.37 dBm. The plot includes a frequency sweep and a count of 100/100. Date: 18.NOV.2019 13:36:40

Type:	802.11n(HT20)
CH01	 18.NOV.2019 13:42:58
CH06	 18.NOV.2019 13:45:30
CH11	 18.NOV.2019 13:49:16

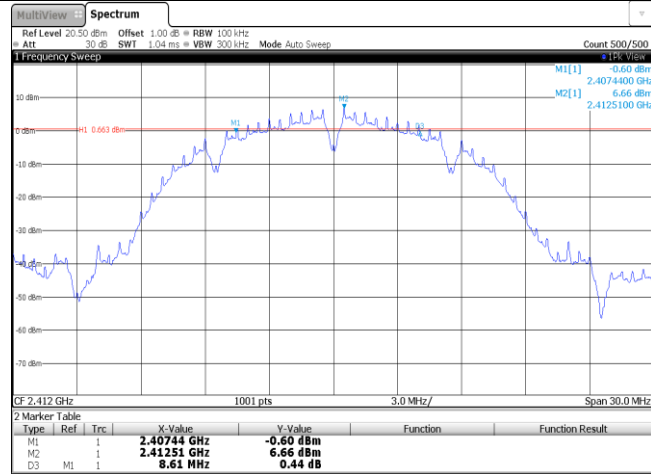
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth (MHz)	Limit (kHz)	Result
802.11b	01	8.61	≥500	Pass
	06	9.09		
	11	9.12		
802.11g	01	15.15	≥500	Pass
	06	15.18		
	11	15.15		
802.11n(HT20)	01	15.15	≥500	Pass
	06	15.18		
	11	15.15		

Type:

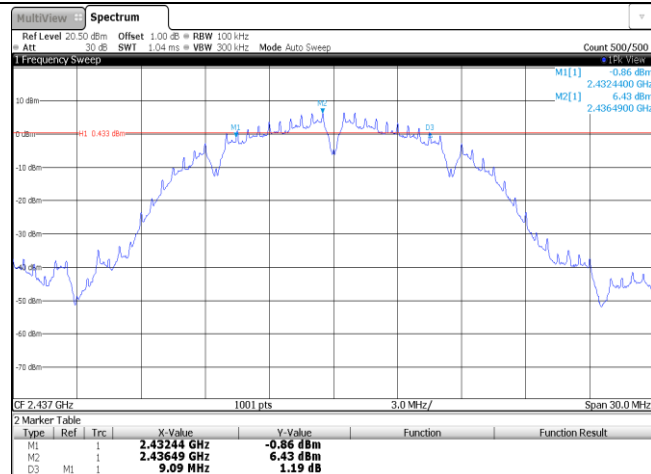
802.11 b

CH01



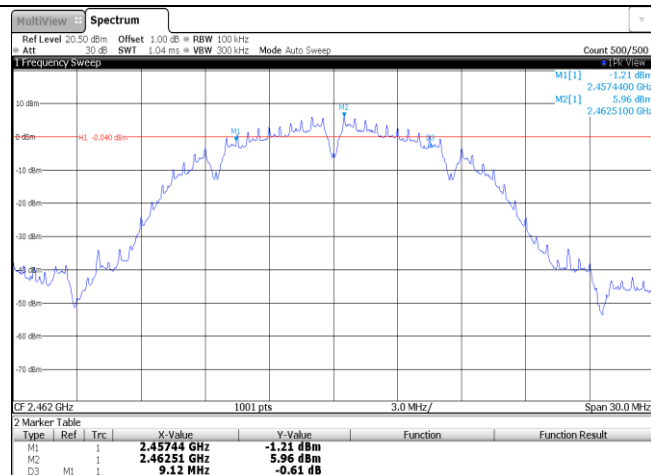
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CH06

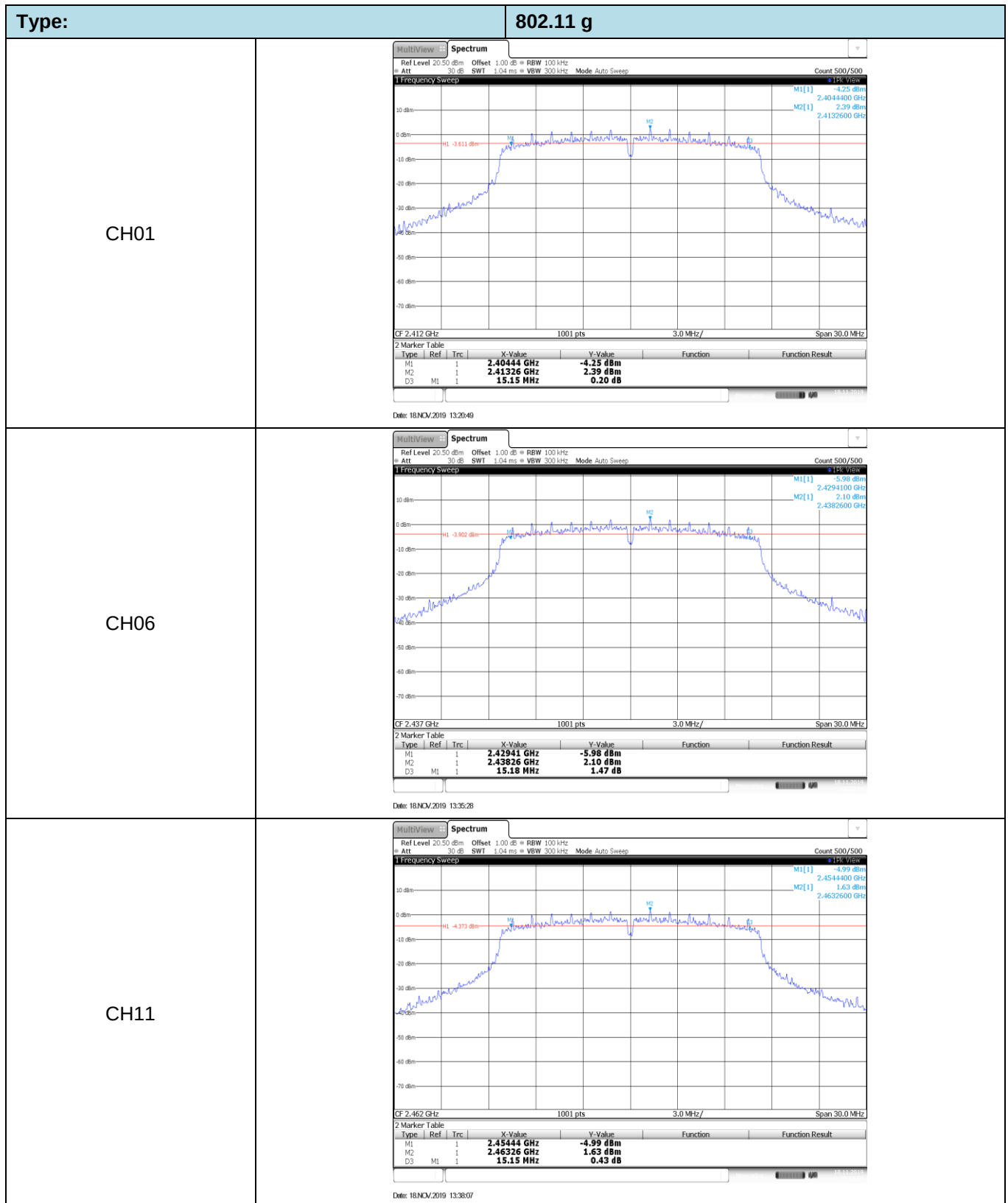


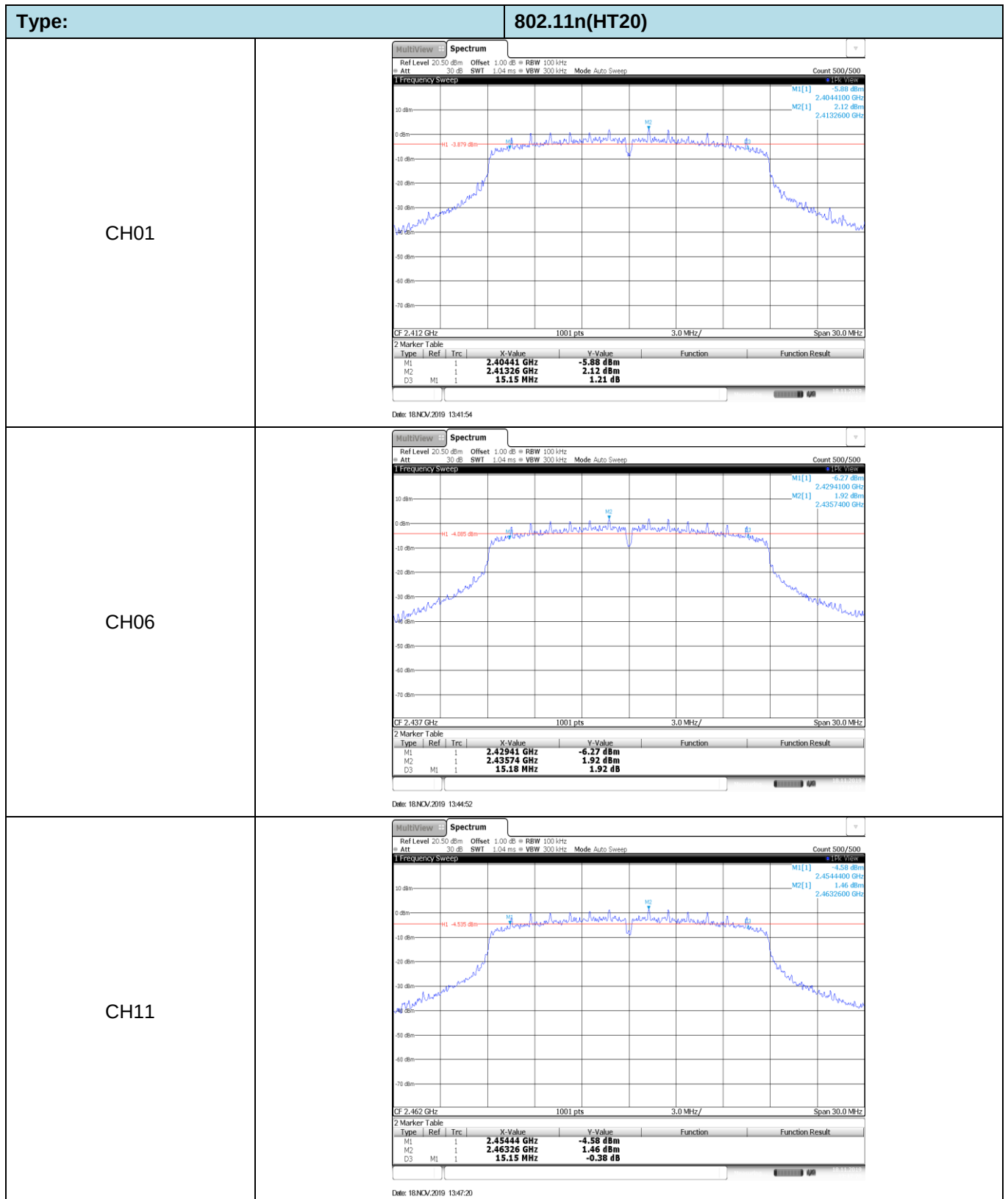
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CH11



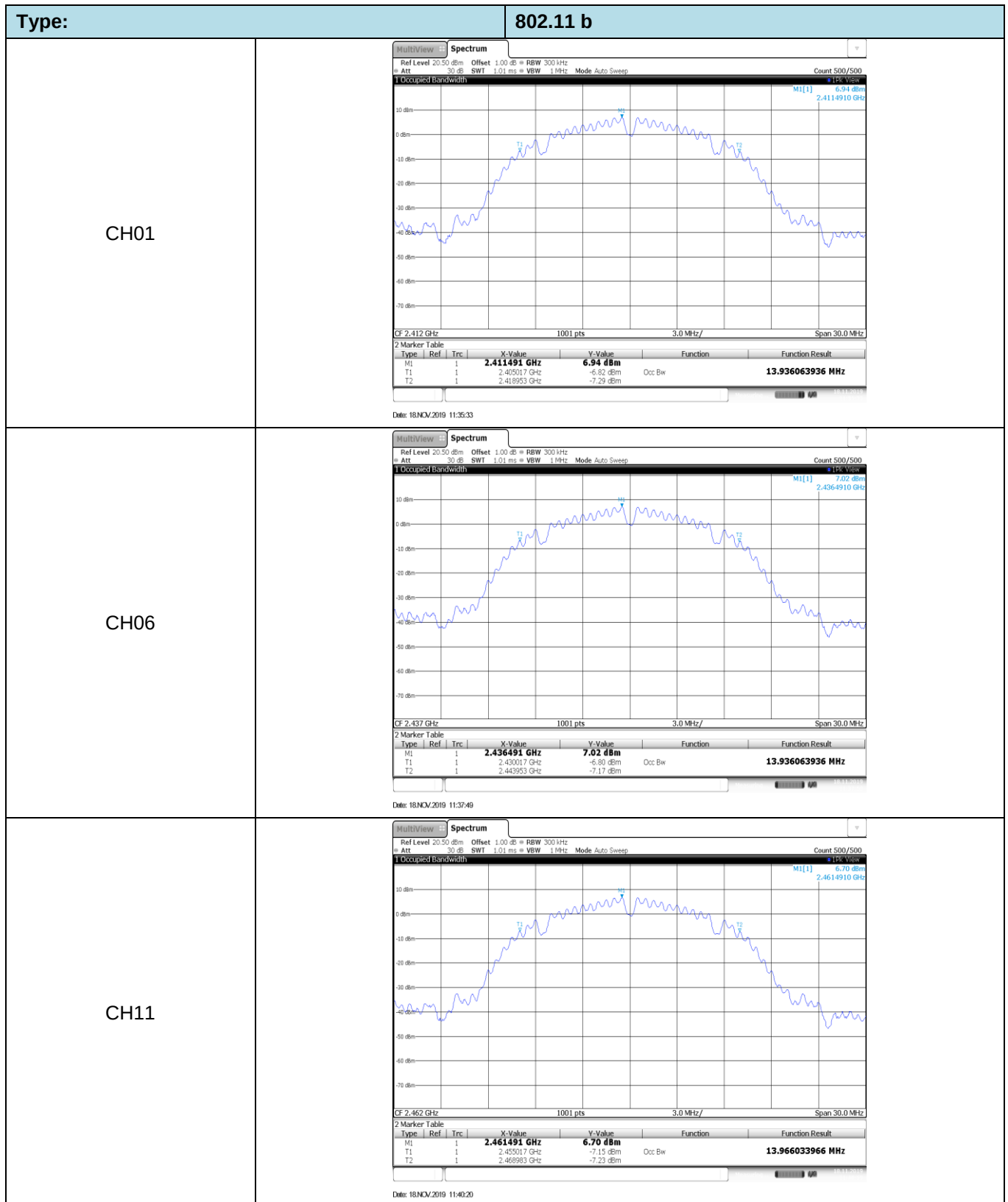
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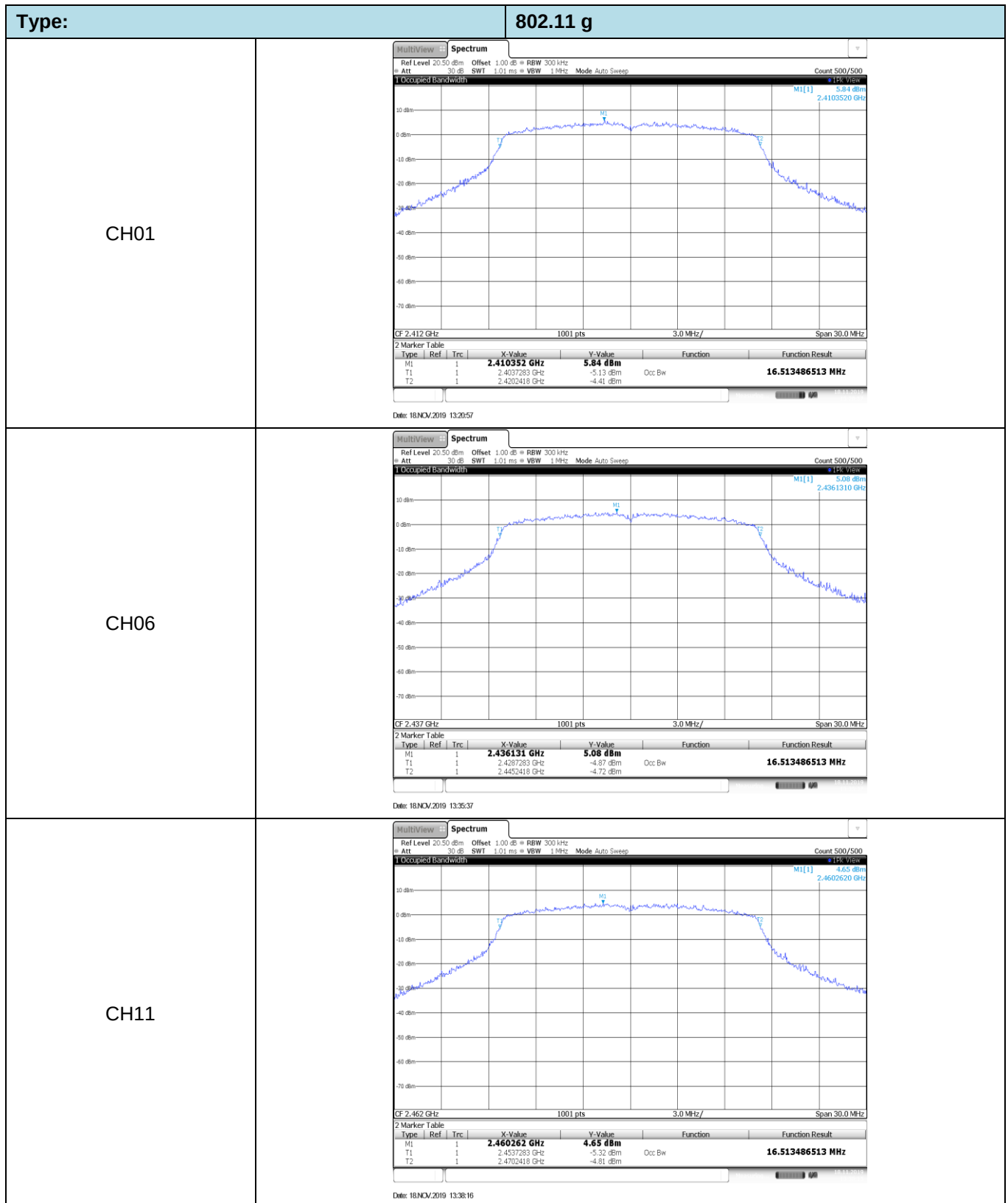


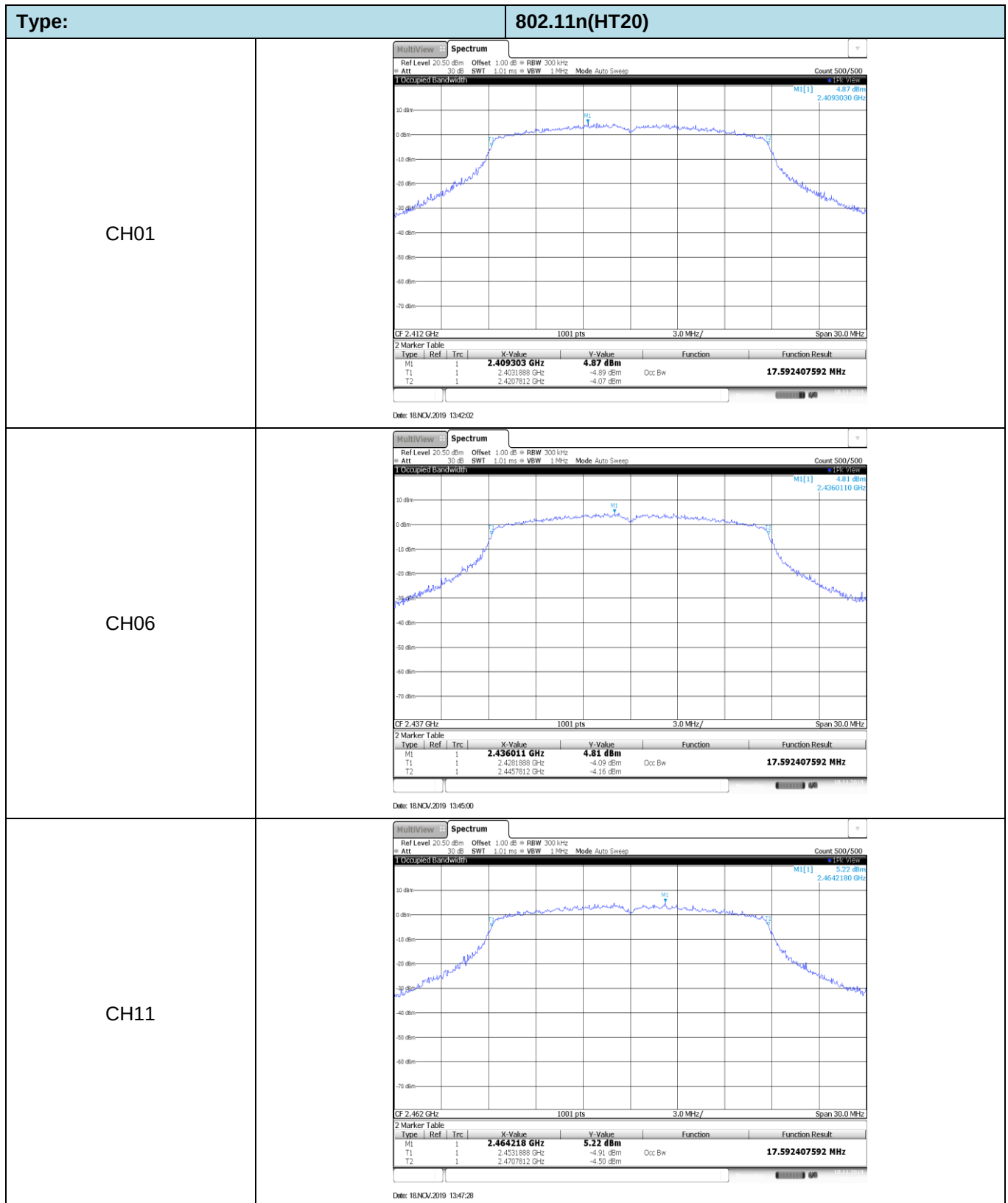


Appendix D: 99% Occupied Bandwidth

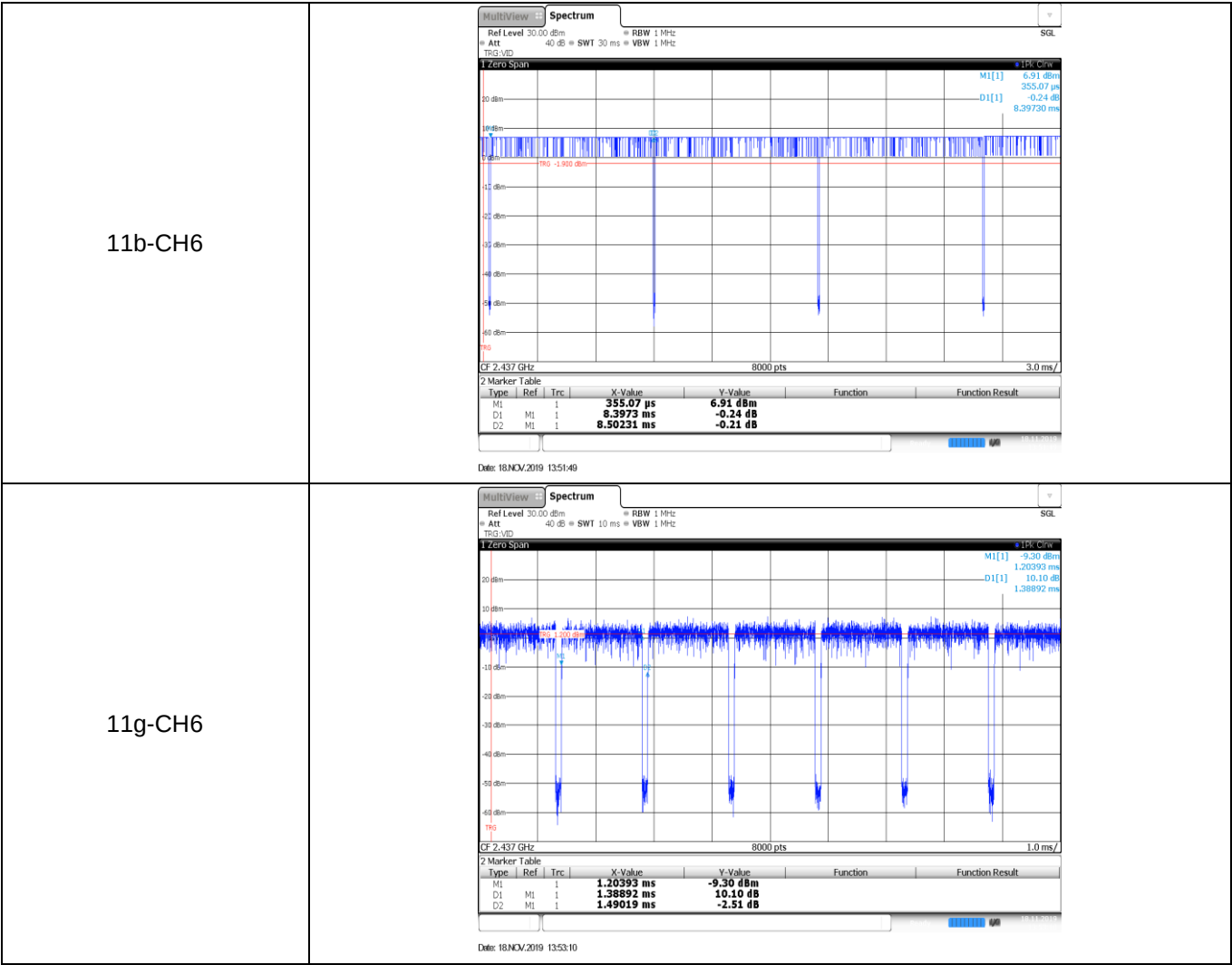
Type	Channel	99% Bandwidth (MHz)	Limit (kHz)	Result
802.11b	01	13.94	≥500	Pass
	06	13.94		
	11	13.97		
802.11g	01	16.51	≥500	Pass
	06	16.51		
	11	16.51		
802.11n(HT20)	01	17.59	≥500	Pass
	06	17.59		
	11	17.59		







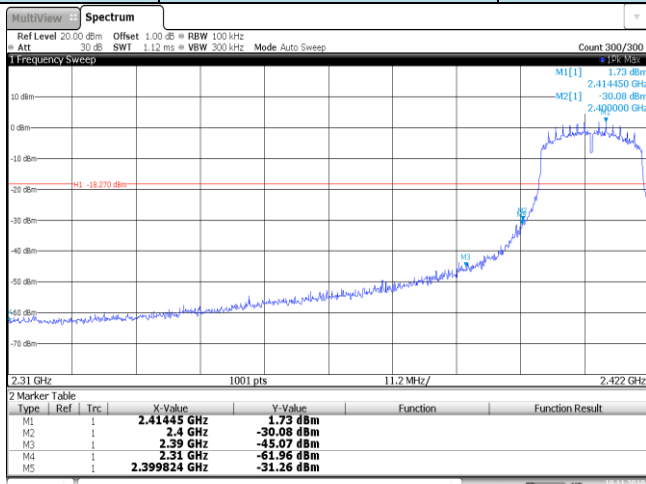
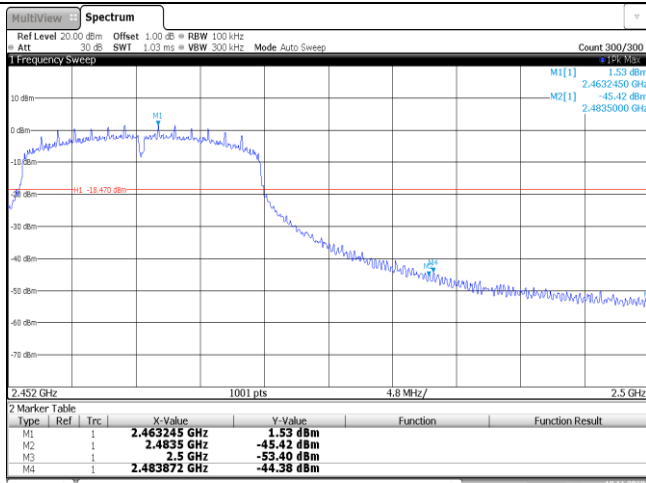
Appendix E: Duty Cycle

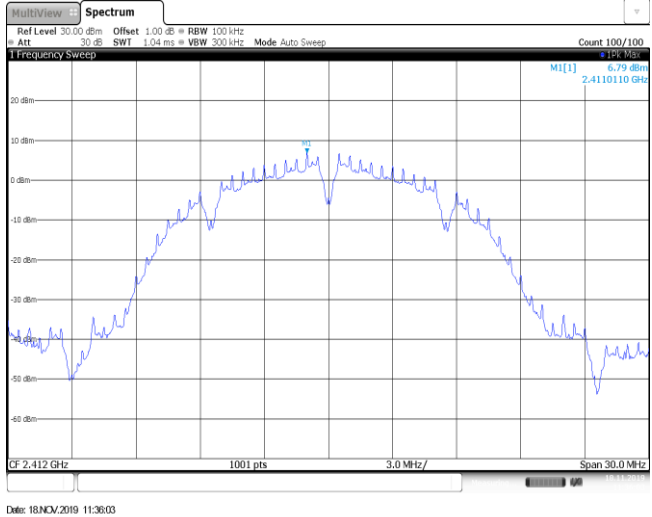
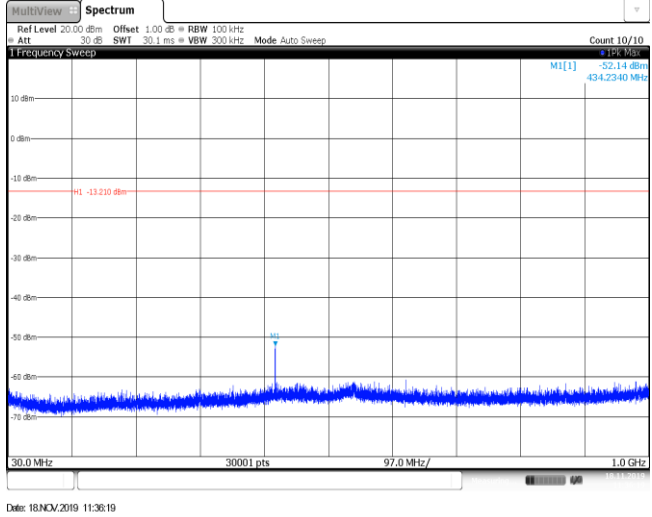
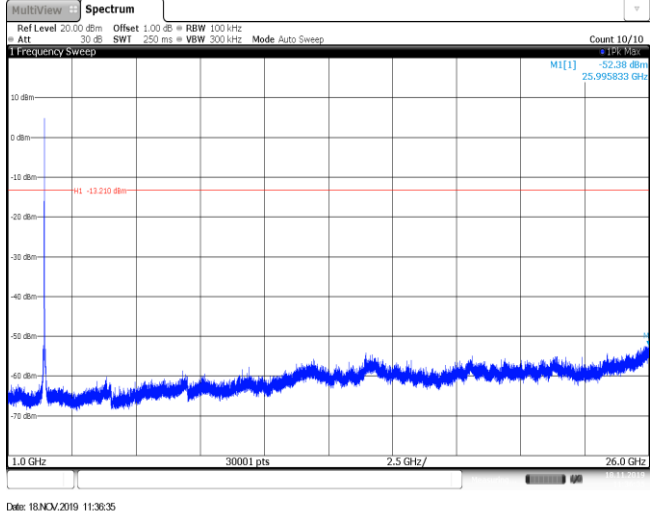


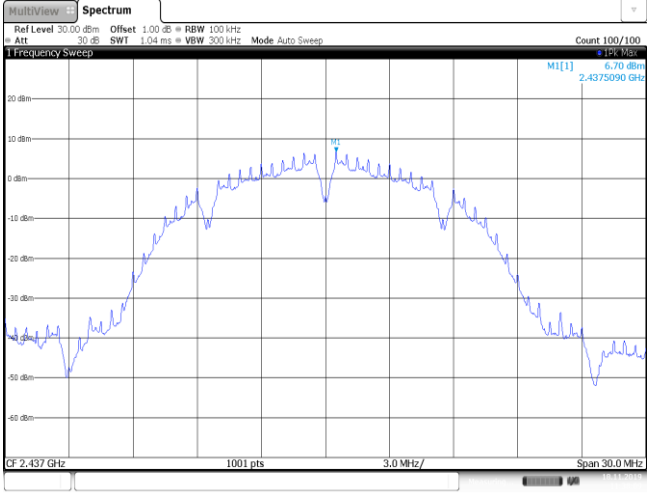
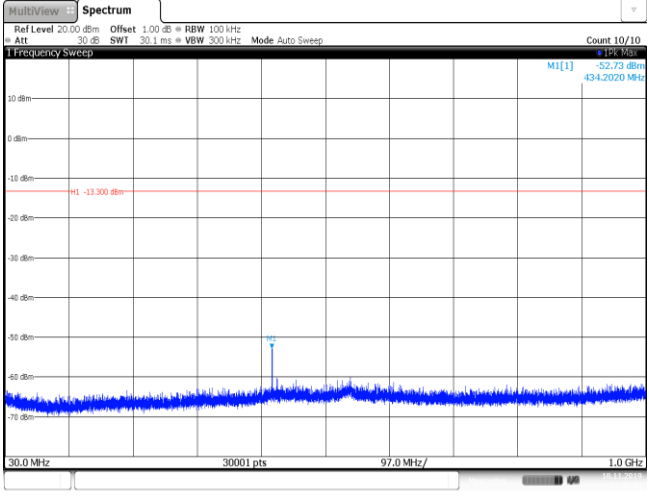
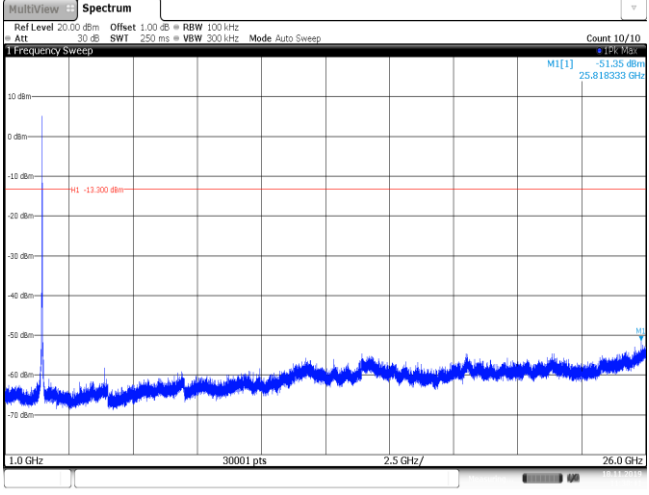
Appendix F: Band edge and Spurious Emissions (conducted)

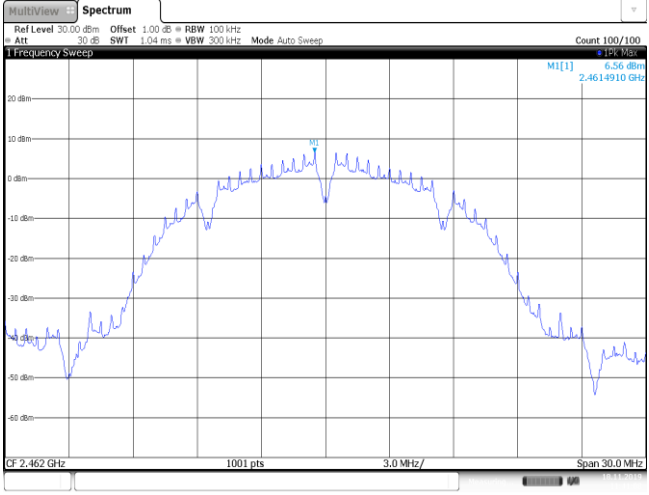
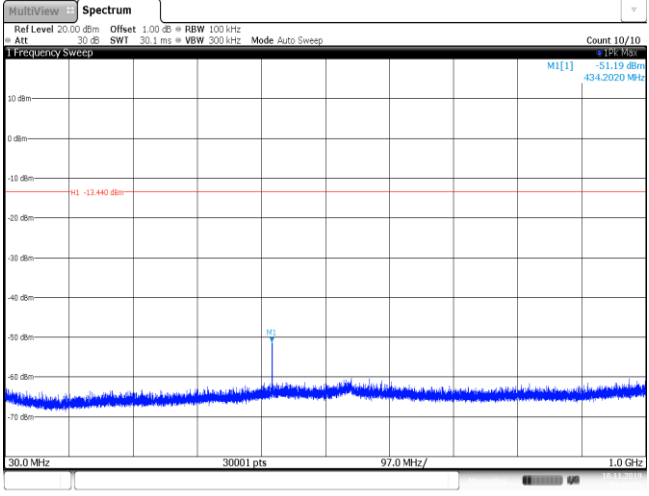
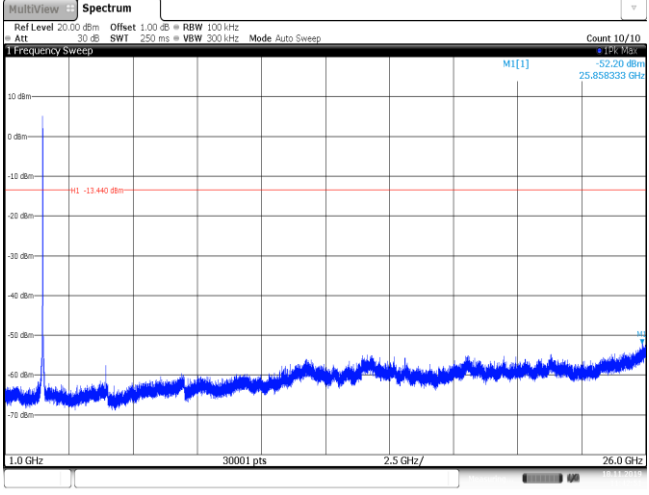
Test Item:	Bandedge	Type:	802.11 b																																										
CH01	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 1.12 ms VBW 300 kHz Mode Auto Sweep Count 300/300 1 Frequency Sweep 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm 2.31 GHz 1001 pts 11.2 MHz/ 2.422 GHz M1[1] 6.15 dBm M2[1] -49.20 dBm M3 2.397024 GHz -35.53 dBm <table><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-Value</th><th>Y-Value</th><th>Function</th><th>Function Result</th></tr><tr><td>M1</td><td>1</td><td></td><td>2.41098 GHz</td><td>6.15 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-49.20 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-54.44 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-62.66 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.397024 GHz</td><td>-35.53 dBm</td><td></td><td></td></tr></table> Date: 18/NOV/2019 11:35:56			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.41098 GHz	6.15 dBm			M2	1		2.4 GHz	-49.20 dBm			M3	1		2.39 GHz	-54.44 dBm			M4	1		2.31 GHz	-62.66 dBm			M5	1		2.397024 GHz	-35.53 dBm		
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CH11	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 1.03 ms VBW 300 kHz Mode Auto Sweep Count 300/300 1 Frequency Sweep 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm 2.452 GHz 1001 pts 4.8 MHz/ 2.5 GHz M1[1] 6.30 dBm M2[1] -52.92 dBm M3 2.485024 GHz -48.13 dBm <table><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-Value</th><th>Y-Value</th><th>Function</th><th>Function Result</th></tr><tr><td>M1</td><td>1</td><td></td><td>2.461471 GHz</td><td>6.30 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.48335 GHz</td><td>-52.92 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-55.99 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.485024 GHz</td><td>-48.13 dBm</td><td></td><td></td></tr></table> Date: 18/NOV/2019 11:41:01			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.461471 GHz	6.30 dBm			M2	1		2.48335 GHz	-52.92 dBm			M3	1		2.5 GHz	-55.99 dBm			M4	1		2.485024 GHz	-48.13 dBm									
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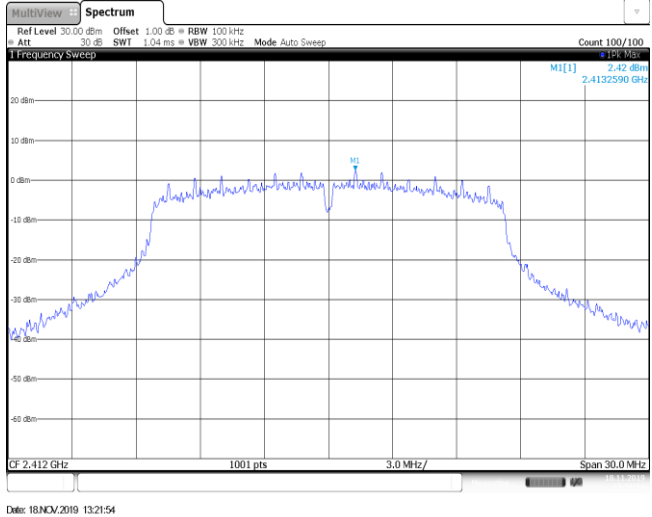
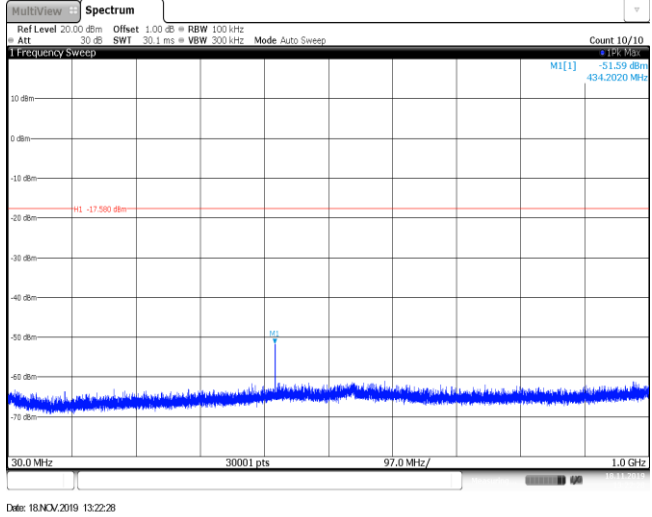
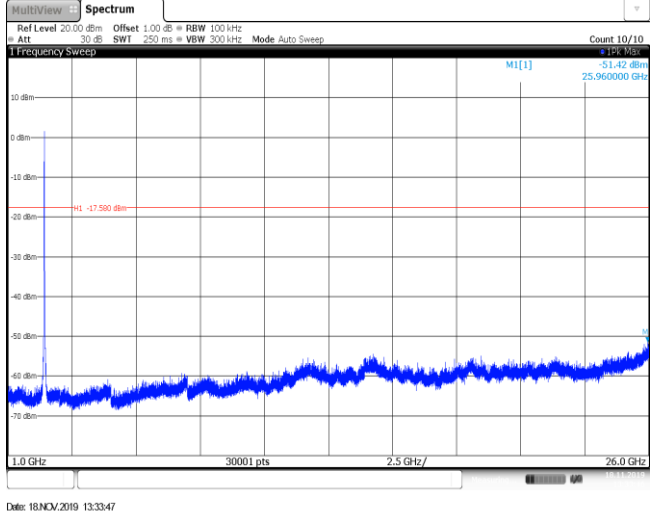
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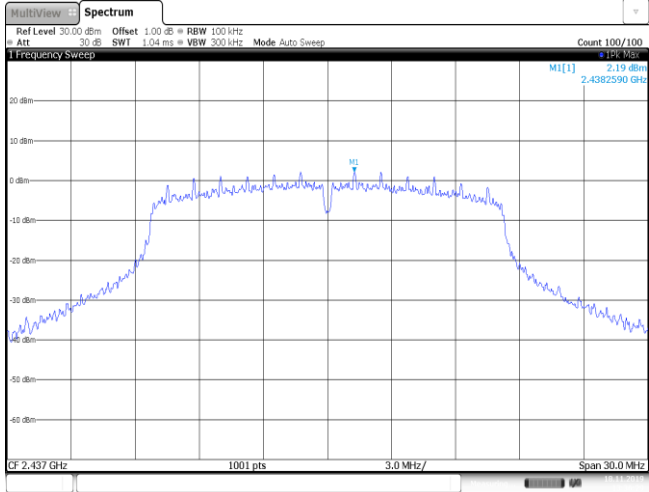
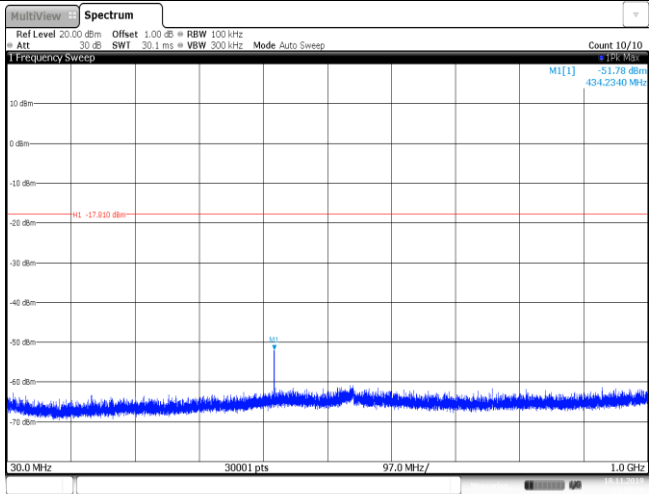
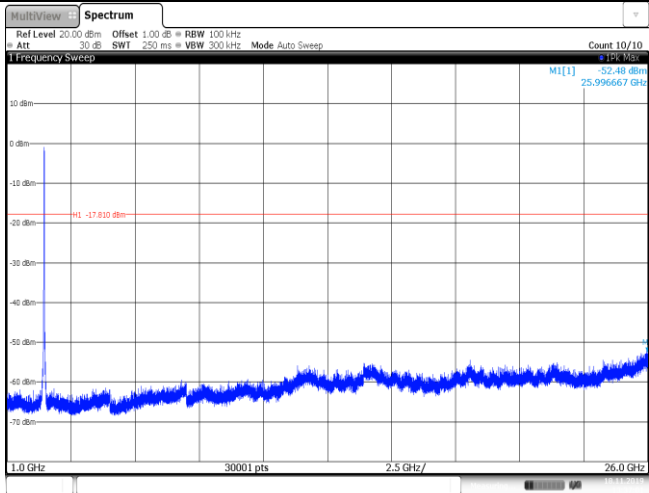
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M4	1		2.31 GHz	-61.96 dBm																																								
M5	1		2.399824 GHz	-31.26 dBm																																								
CH11	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWI 1.03 ms VBW 300 kHz Mode Auto Sweep Count 300/300 1 Frequency Sweep  2 Marker Table <table><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-Value</th><th>Y-Value</th><th>Function</th><th>Function Result</th></tr><tr><td>M1</td><td>1</td><td></td><td>2.463245 GHz</td><td>1.53 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4835 GHz</td><td>-45.42 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-53.40 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.483872 GHz</td><td>-44.38 dBm</td><td></td><td></td></tr></table> Date: 18.NOV.2019 14:01:20	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.463245 GHz	1.53 dBm			M2	1		2.4835 GHz	-45.42 dBm			M3	1		2.5 GHz	-53.40 dBm			M4	1		2.483872 GHz	-44.38 dBm										
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																						
M1	1		2.463245 GHz	1.53 dBm																																								
M2	1		2.4835 GHz	-45.42 dBm																																								
M3	1		2.5 GHz	-53.40 dBm																																								
M4	1		2.483872 GHz	-44.38 dBm																																								

Test Item:	SE	Type:	802.11 b
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

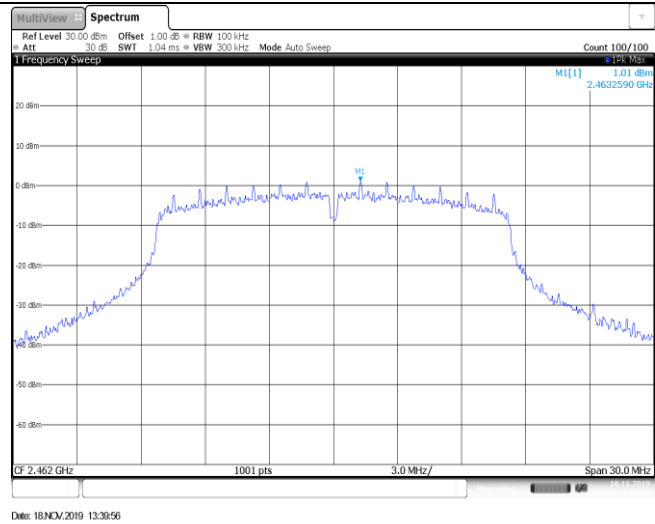
CH06 Reference level	 Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWF 1.04 ms VBW 300 kHz Mode Auto Sweep Count 100/100 MI[1] 6.70 dBm 2.4375090 GHz CF 2.437 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 18/NOV/2019 11:36:09
CH06 30MHz~1000MHz	 Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWF 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 MI[1] -52.73 dBm 434.2020 MHz H1 -13.300 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 18/NOV/2019 11:36:25
CH06 1GHz~26GHz	 Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWF 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 MI[1] -51.35 dBm 25.818333 GHz H1 -13.300 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 18/NOV/2019 11:36:41

CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

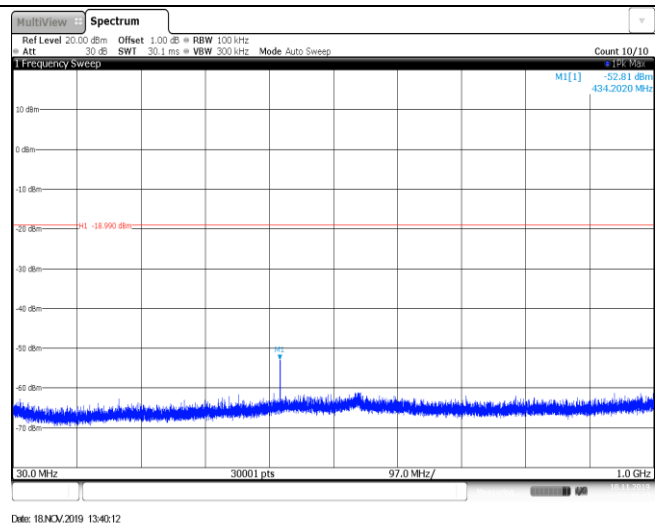
Test Item:	SE	Type:	802.11 g
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

CH06 Reference level	 MultiView Spectrum Ref Level 30.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWF 1.04 ms VBW 300 kHz Mode Auto Sweep Count 100/100 1 Frequency Sweep M1[1] 2.19 dBm 2.4382590 GHz CF 2.437 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 18/NOV/2019 13:36:28
CH06 30MHz~1000MHz	 MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWF 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 1 Frequency Sweep M1[1] -51.78 dBm 434.2340 MHz M1 -17.610 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 18/NOV/2019 13:36:44
CH06 1GHz~26GHz	 MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWF 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 1 Frequency Sweep M1[1] -52.48 dBm 25.996667 GHz M1 -17.610 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 18/NOV/2019 13:37:01

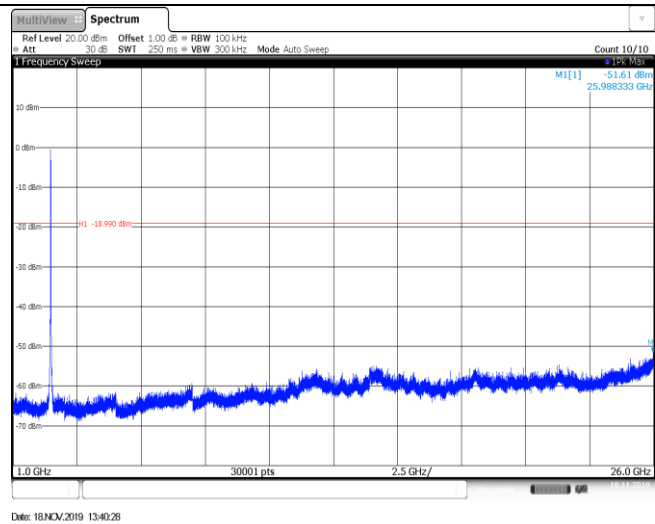
CH11
Reference level

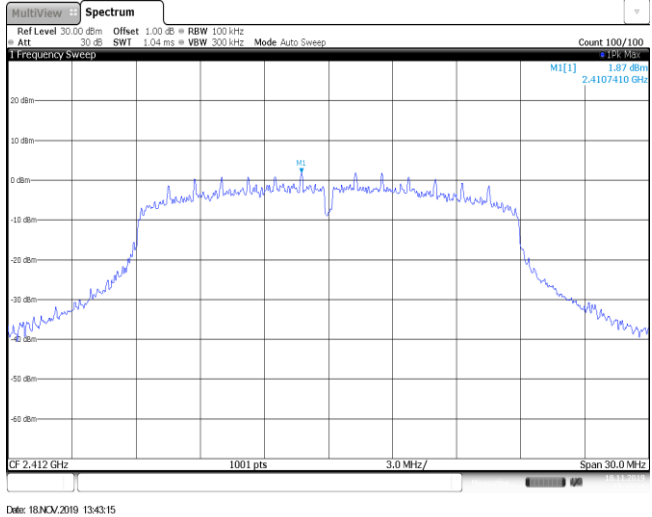
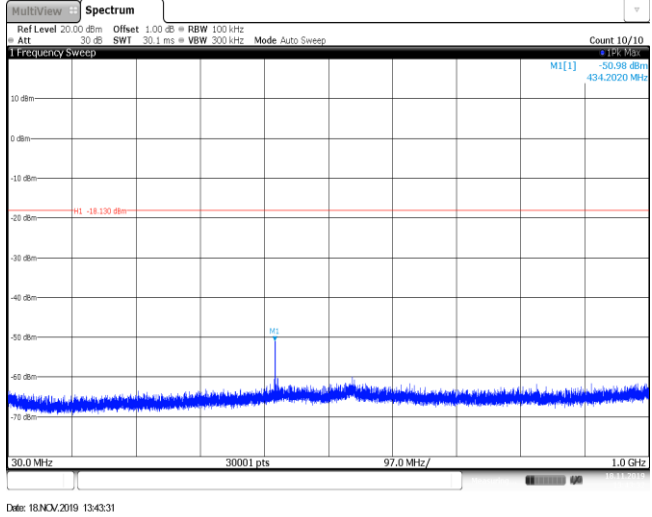
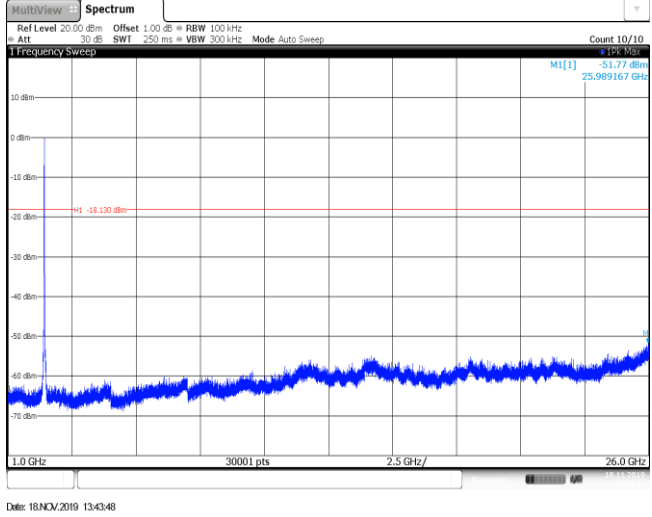


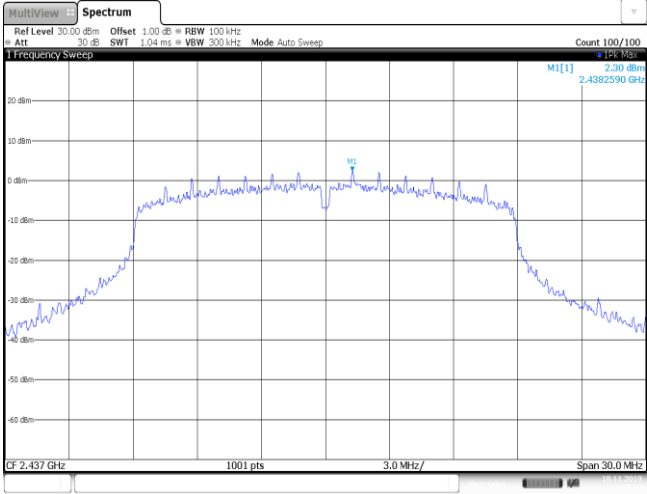
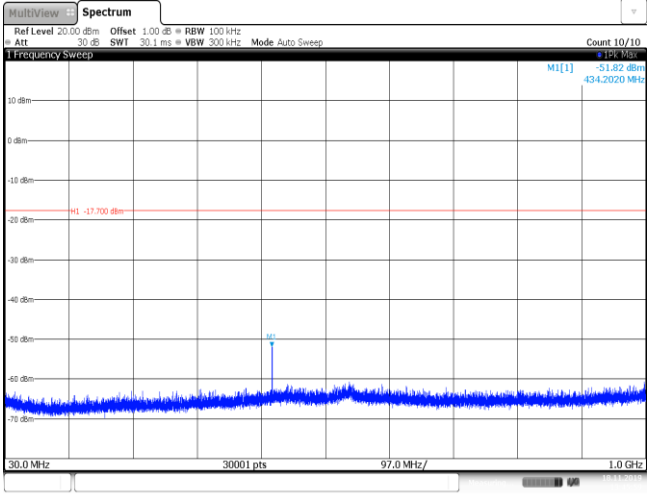
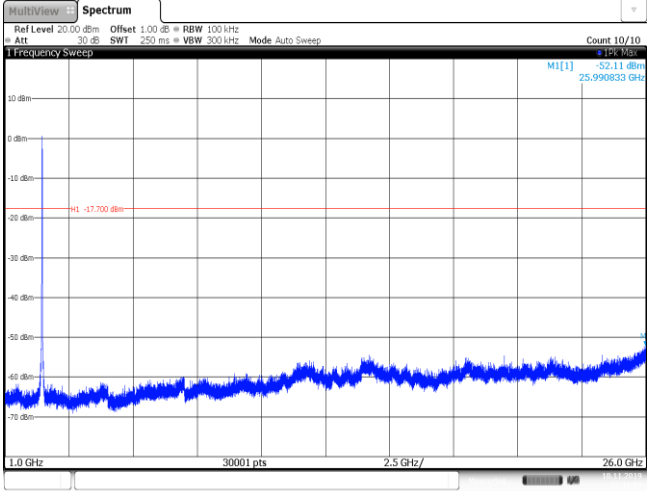
CH11
30MHz~1000MHz

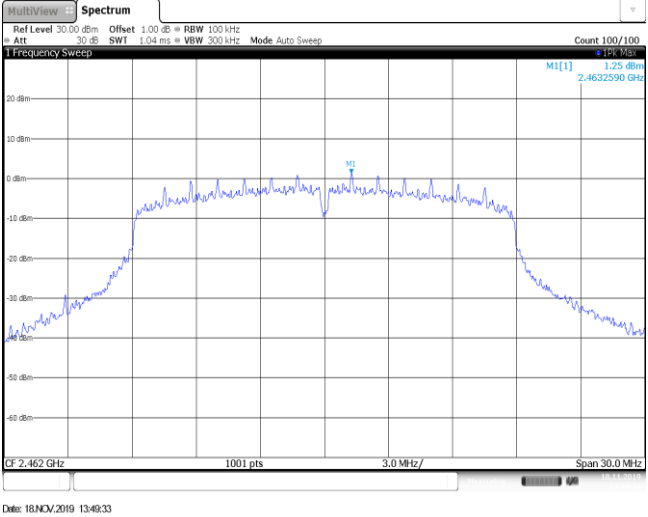
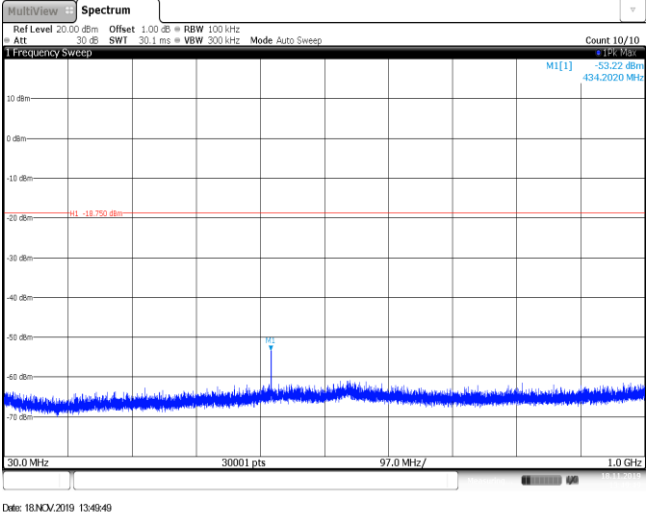
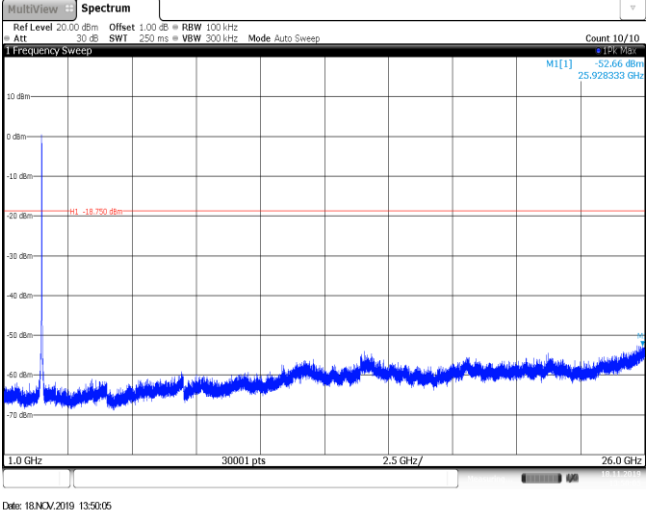


CH11
1GHz~26GHz



Test Item:	SE	Type:	802.11 n(HT20)
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

CH06 Reference level	 18/NOV/2019 13:45:42
CH06 30MHz~1000MHz	 18/NOV/2019 13:45:58
CH06 1GHz~26GHz	 18/NOV/2019 13:46:15

CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

-----End of Report-----