

APPENDIX REPORT

Project No.	SHT2111009103EW	Radio Specification	WIFI 2.4G
Test sample No.	YPHT21110091014	Model No.	Note1
Start test date	2021-11-18	Finish date	2021-11-18
Temperature	23.7°C	Humidity	31%
Test Engineer	Xiaoqin Li	Auditor	Xiaodong Zhu

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	15.38	12.93	≤ 30.00	Pass
	06	15.60	13.17		
	11	15.11	12.70		
802.11g	01	15.49	13.06	≤ 30.00	Pass
	06	15.72	13.16		
	11	15.35	12.76		
802.11n (HT20)	01	15.44	12.76	≤ 30.00	Pass
	06	15.65	13.12		
	11	15.21	12.60		

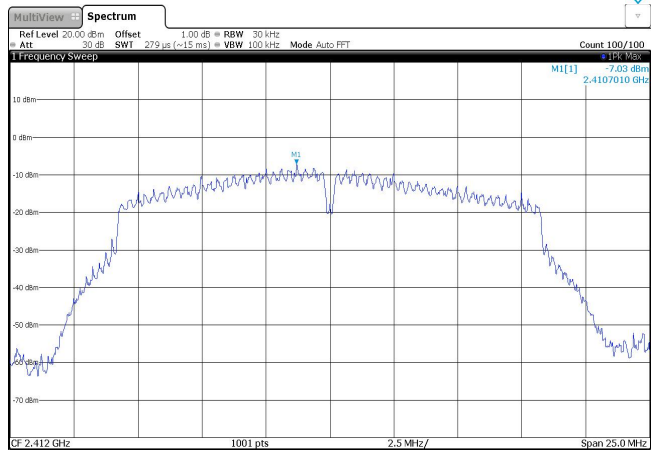
Appendix B: Power Spectral Density

Type	Channel	Power Spectral Density (dBm/30KHz)	Limit (dBm/3KHz)	Result
802.11b	01	2.23	≤8.00	Pass
	06	1.56		
	11	1.54		
802.11g	01	-7.03	≤8.00	Pass
	06	-7.72		
	11	-8.37		
802.11n(HT20)	01	-7.39	≤8.00	Pass
	06	-7.90		
	11	-7.29		

Type:	802.11 b
CH01	<p>MultiView Spectrum 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 1 Frequency Sweep M1[1] 2.4114890 GHz 11.54 dBm CF 2.412 GHz 1001 pts 1.6 MHz/ Span 16.0 MHz Date: 18 NOV 2021 08:50:55</p>
CH06	<p>MultiView Spectrum 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 1 Frequency Sweep M1[1] 2.4384870 GHz 11.54 dBm CF 2.437 GHz 1001 pts 1.6 MHz/ Span 16.0 MHz Date: 18 NOV 2021 08:53:23</p>
CH11	<p>MultiView Spectrum 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 1 Frequency Sweep M1[1] 2.4614890 GHz 11.54 dBm CF 2.462 GHz 1001 pts 1.6 MHz/ Span 16.0 MHz Date: 18 NOV 2021 08:56:21</p>

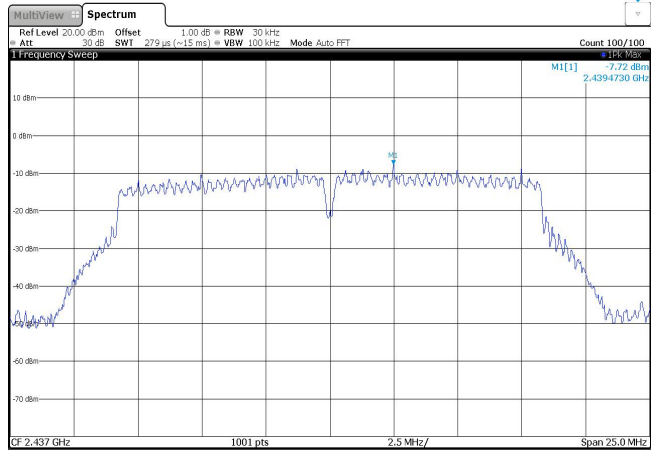
Type: **802.11 g**

CH01



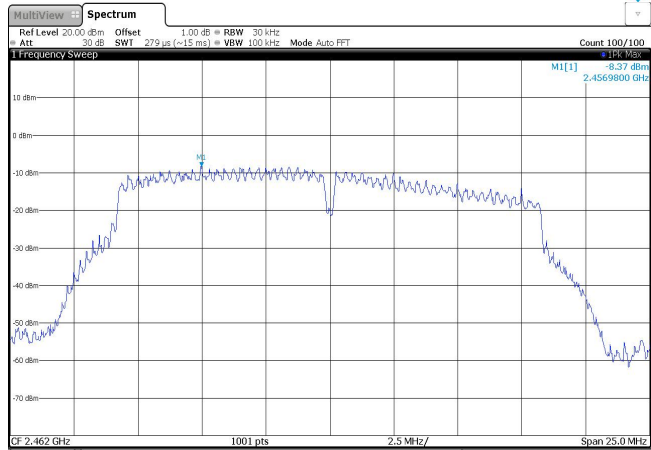
Date: 18 NOV 2021 09:00:51

CH06



Date: 18 NOV 2021 09:03:51

CH11

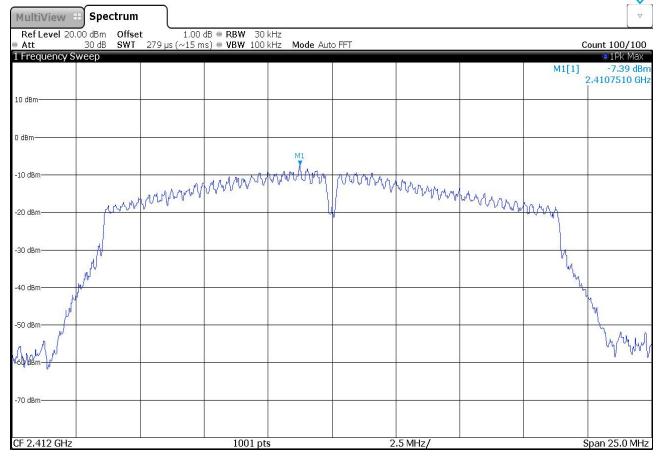


Date: 18 NOV 2021 09:05:57

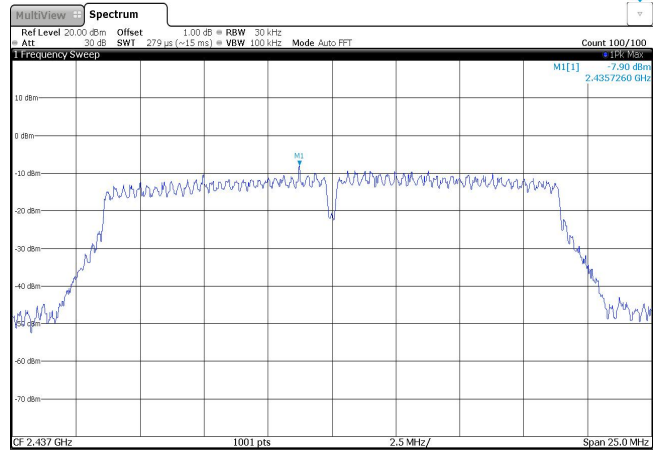
Type:

802.11n(HT20)

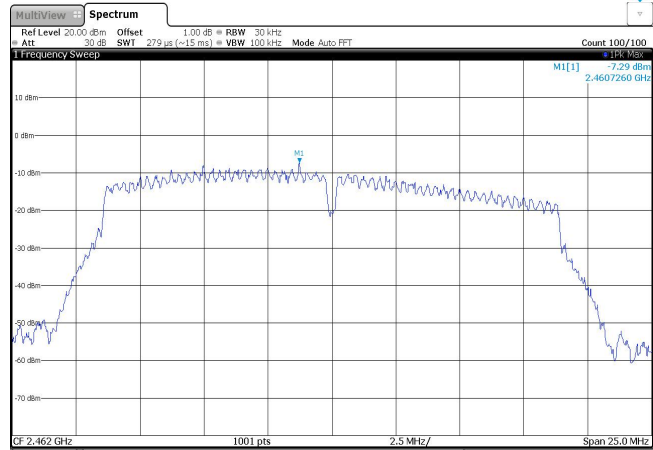
CH01



CH06



CH11

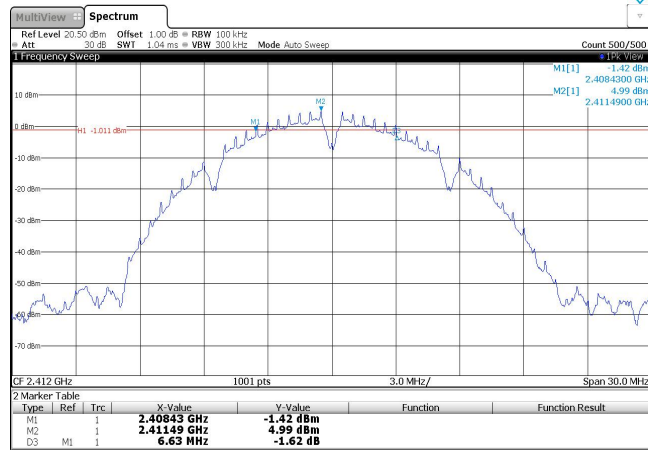


Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	01	6.63	≥0.5	Pass
	06	8.61		
	11	7.62		
802.11g	01	11.34	≥0.5	Pass
	06	15.78		
	11	12.87		
802.11n(HT20)	01	11.37	≥0.5	Pass
	06	16.41		
	11	12.66		

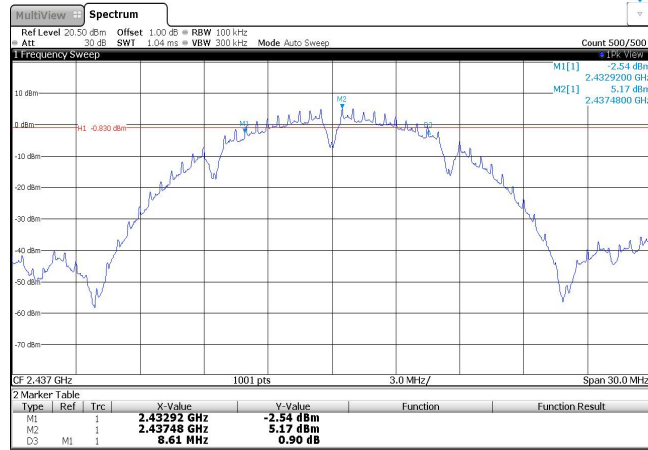
Type: **802.11 b**

CH01



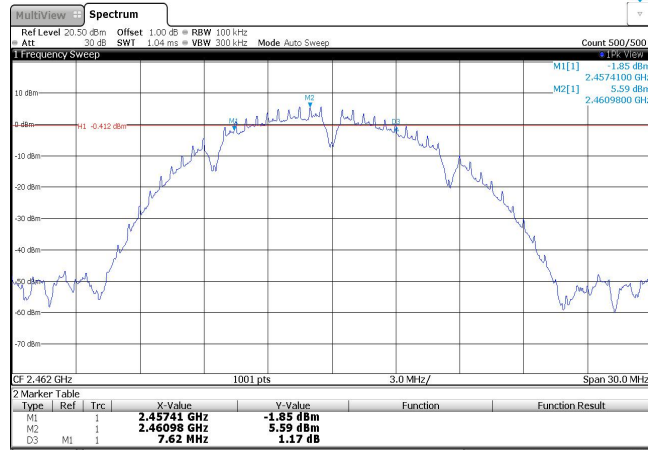
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CH06



Date: 18 NOV 2021 08:52:40

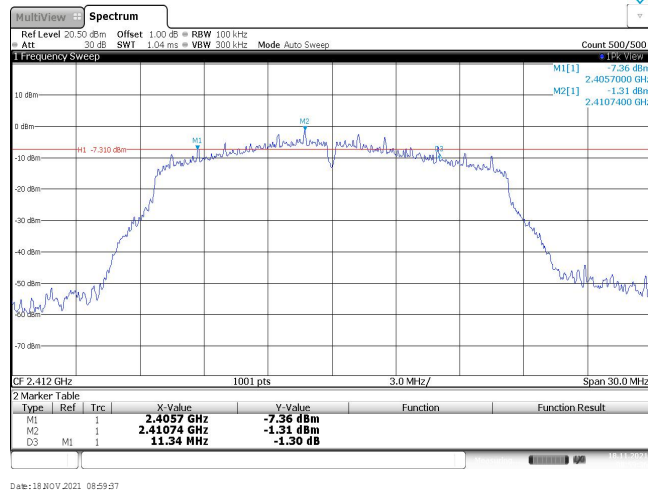
CH11



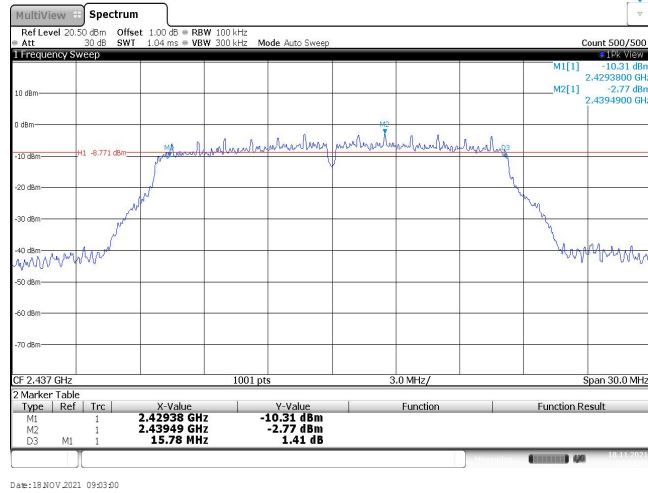
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Type: **802.11 g**

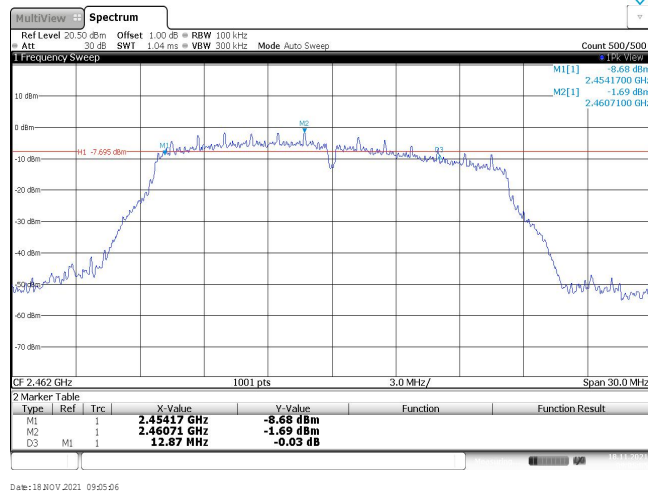
CH01



CH06



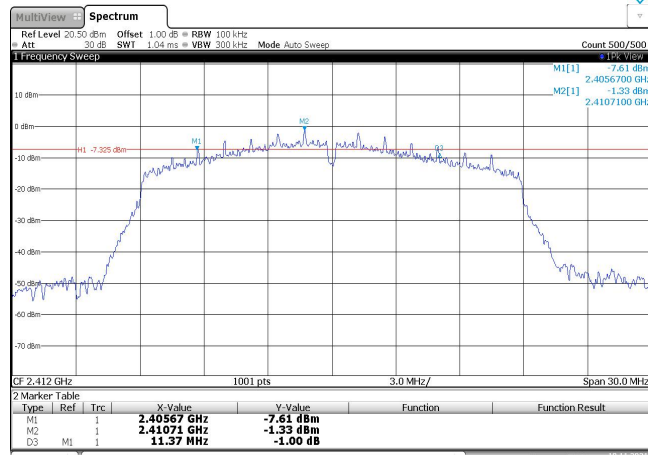
CH11



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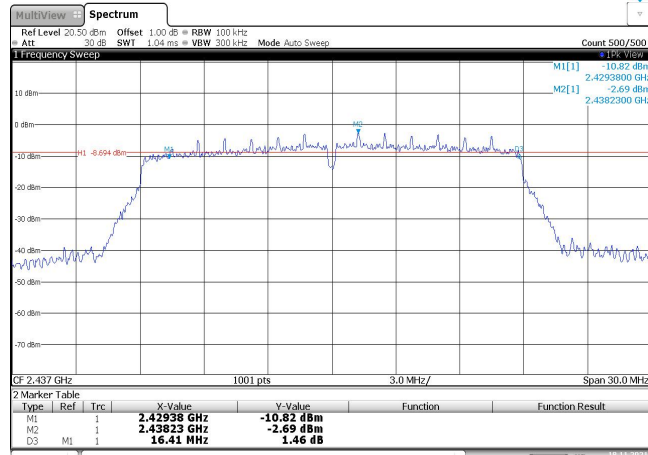
802.11n(HT20)

CH01



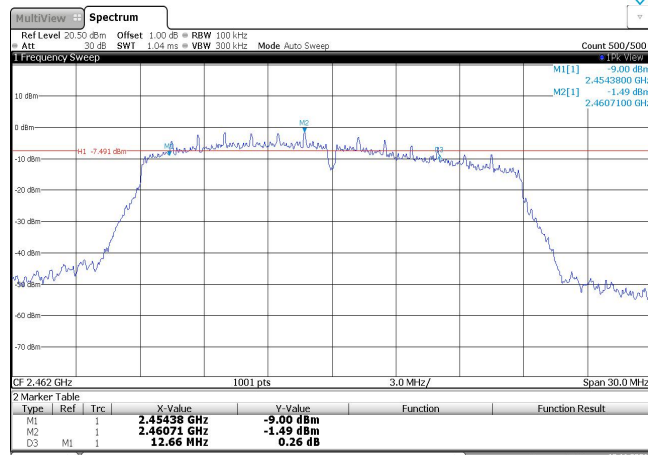
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CH06



Date: 18 NOV 2021 09:00:11

CH11



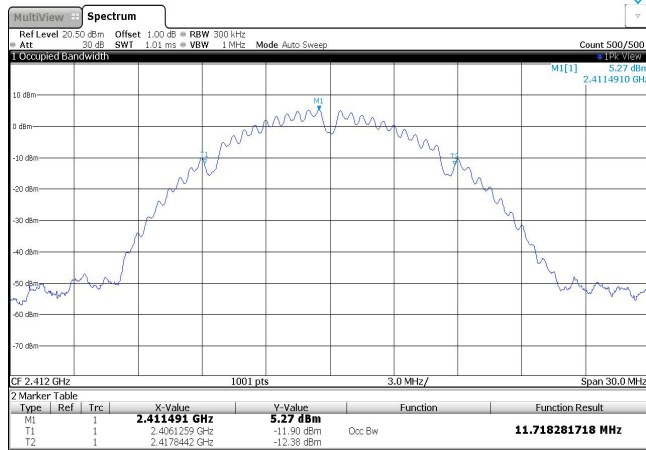
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Appendix D: 99% Occupied Bandwidth

Type	Channel	99% Bandwidth (MHz)	Limit (MHz)	Result
802.11b	01	11.72	-	Pass
	06	13.19		
	11	12.56		
802.11g	01	16.03	-	Pass
	06	16.90		
	11	16.39		
802.11n(HT20)	01	17.08	-	Pass
	06	17.92		
	11	17.41		

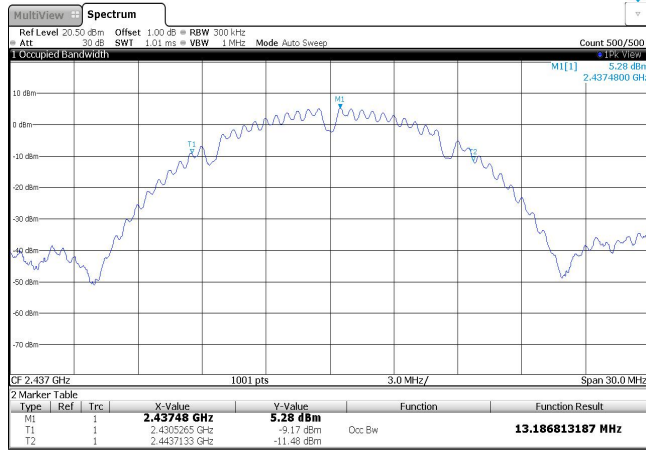
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CH01



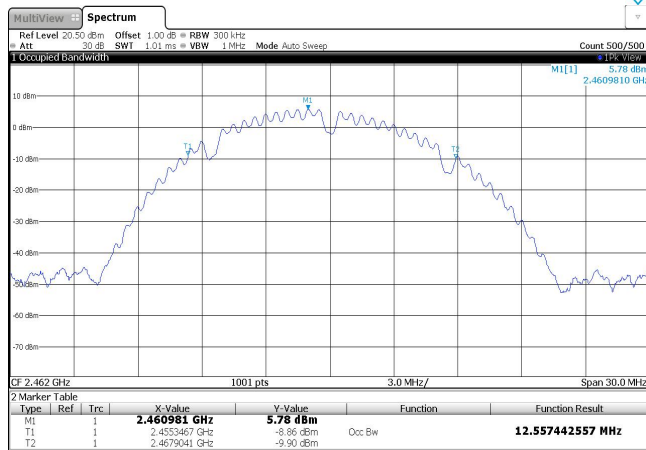
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CH06



Date: 18 NOV 2021 08:52:49

CH11



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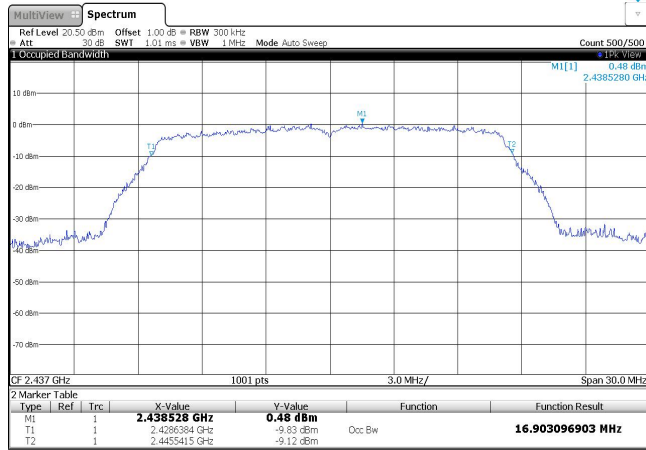
Type: **802.11 g**

CH01



Date: 18 NOV 2021 08:59:45

CH06



Date: 18 NOV 2021 09:03:09

CH11



Date: 18 NOV 2021 09:05:25

Type:

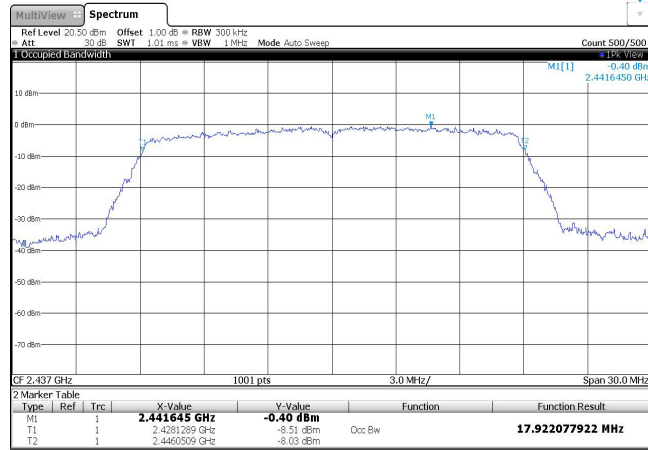
802.11n(HT20)

CH01



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CH06



Date: 18 NOV 2021 09:00:29

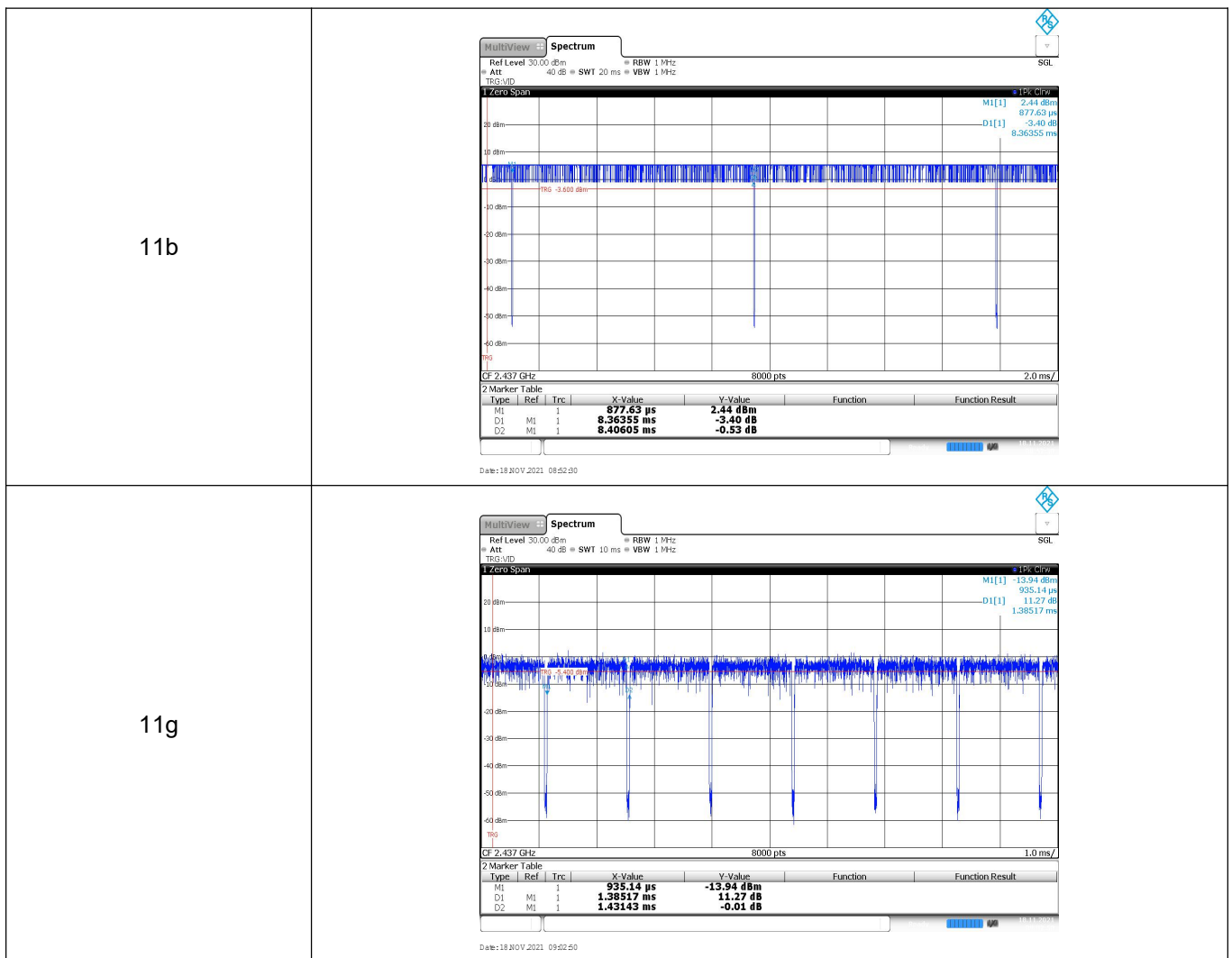
CH11



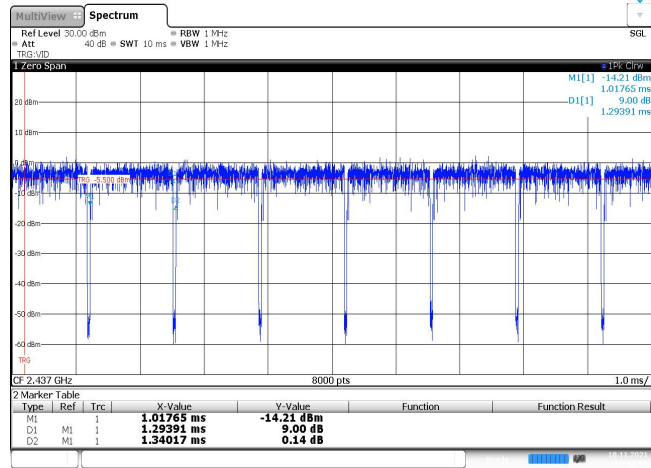
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Appendix E: Duty Cycle


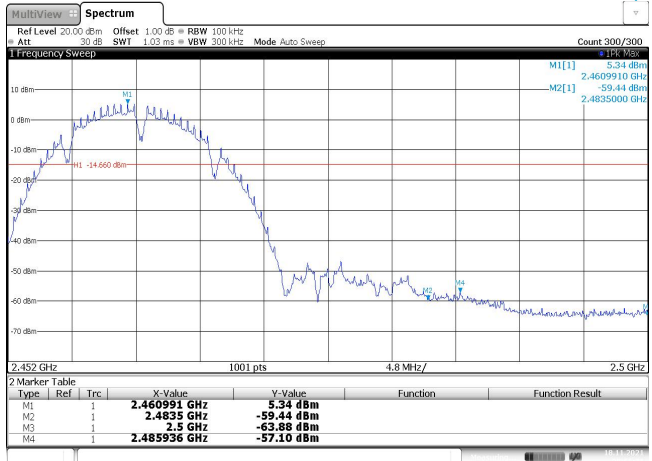
Modulation Type	Test Frequency (MHz)	T _{on} time for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on} time (kHz)
11b	2437	8.36	8.41	99.4%	0.1
11g	2437	1.39	1.43	97.2%	0.7
11n20	2437	1.29	1.34	96.3%	0.8


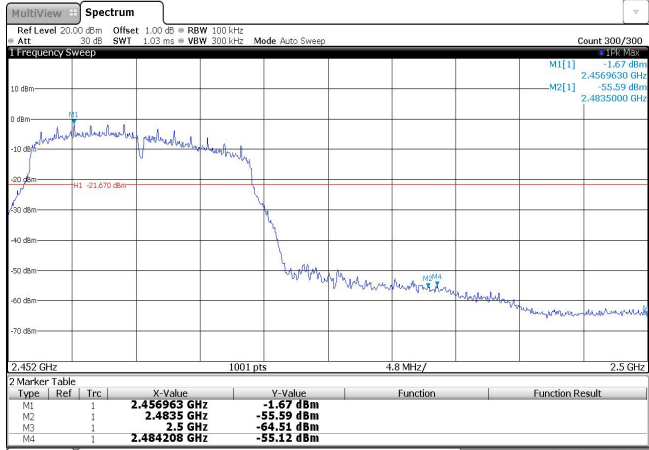



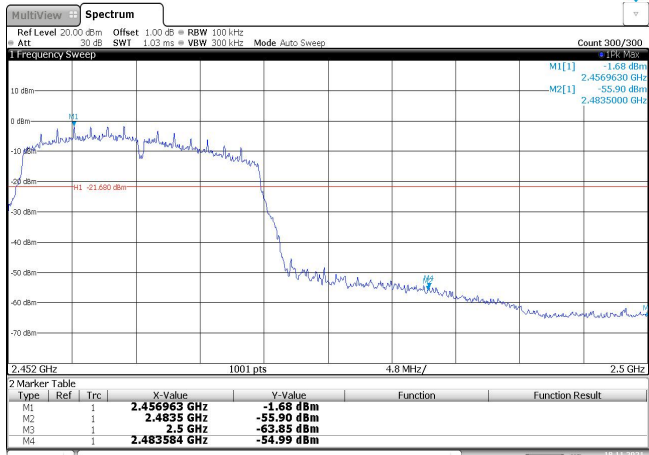
11n20



Appendix F: Band edge and Spurious Emissions (conducted)

Test Item:	Bandedge	Type:	802.11 b																																										
CH01	 <p>2 Marker Table</p> <table border="1"> <thead> <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> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td>2.41098 GHz</td> <td>4.77 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-52.54 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-61.79 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.31 GHz</td> <td>-63.90 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.399936 GHz</td> <td>-51.83 dBm</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 18 NOV 2021 08:51:05</p>			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.41098 GHz	4.77 dBm			M2	1		2.4 GHz	-52.54 dBm			M3	1		2.39 GHz	-61.79 dBm			M4	1		2.31 GHz	-63.90 dBm			M5	1		2.399936 GHz	-51.83 dBm		
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