

APPENDIX REPORT

Project No.	SHT2012123404EW	Radio Specification	WIFI 2.4G
Test sample No.	YPHT20121234003	Model No.	T780
Start test date	2021-11-23	Finish date	2021-11-23
Temperature	23.1℃	Humidity	38%
Test Engineer	Xiaoqin Li	Auditor	Xiaodong Zhu

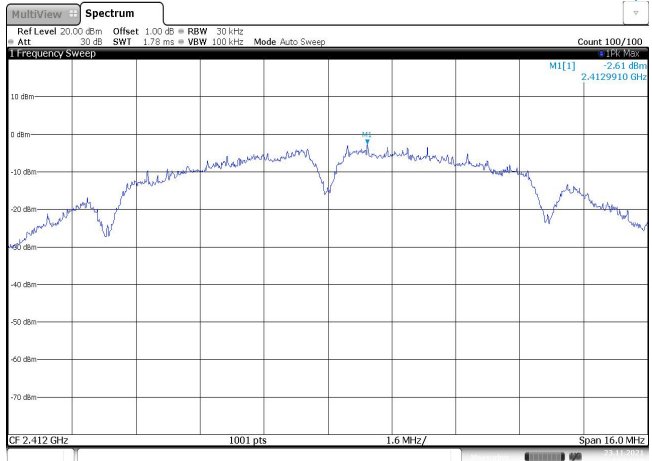
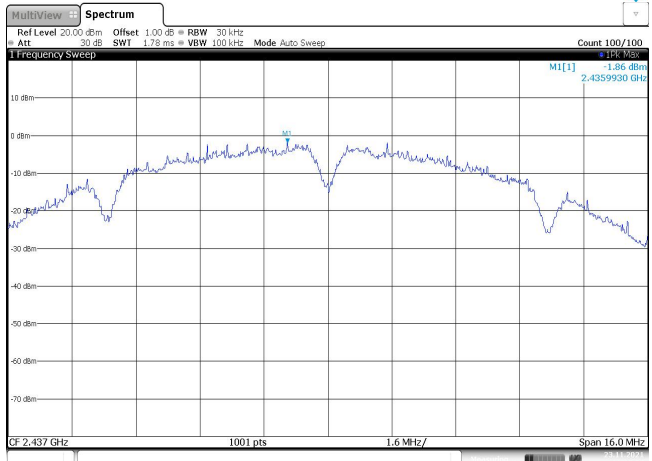
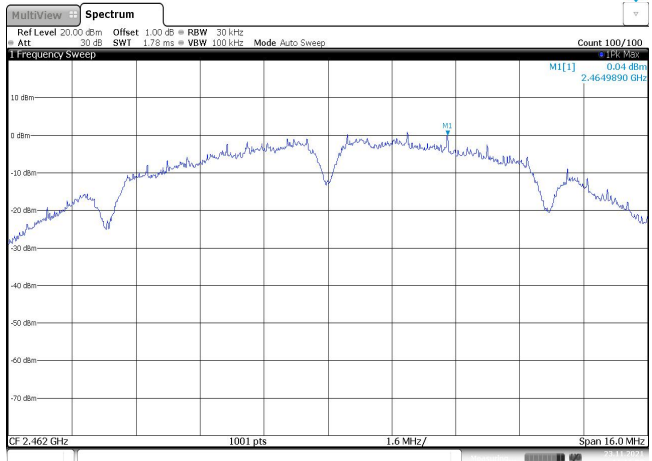
Appendix clause	Test item	Result
A	Conducted Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty Cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

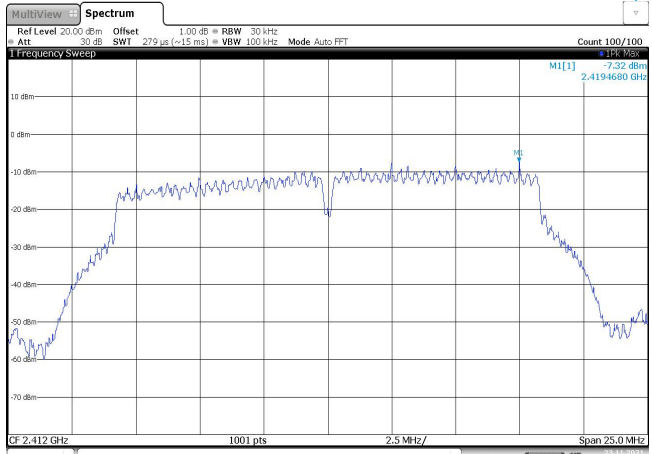
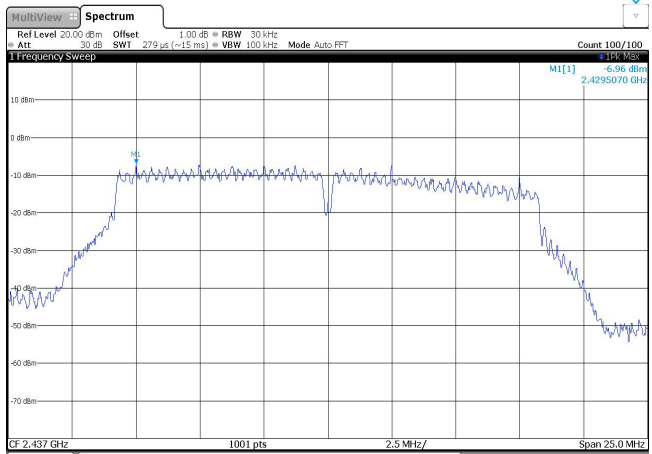
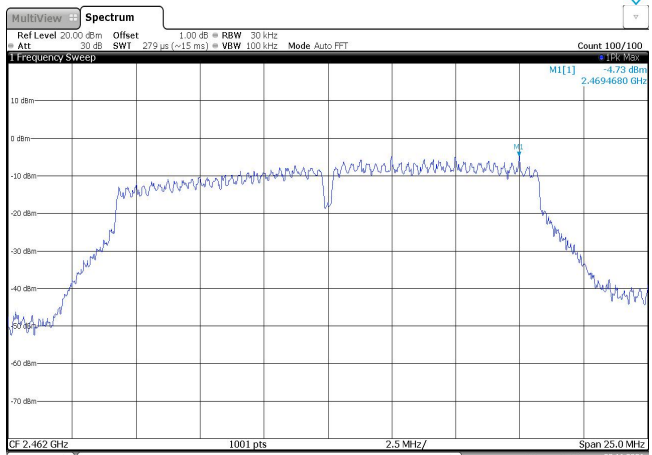
Appendix A: Conducted Peak Output Power

Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
802.11b	01	12.12	9.70	≤ 30.00	Pass
	06	13.28	10.81		
	11	14.02	11.60		
802.11g	01	16.08	13.54	≤ 30.00	Pass
	06	17.35	14.70		
	11	18.24	15.60		
802.11n (HT20)	01	16.00	13.42	≤ 30.00	Pass
	06	17.30	14.82		
	11	18.16	15.56		
802.11n (HT40)	03	19.77	17.20	≤ 30.00	Pass
	06	19.07	16.64		
	09	18.17	15.72		

Appendix B: Power Spectral Density

Type	Channel	Power Spectral Density (dBm/30KHz)	Limit (dBm/3KHz)	Result
802.11b	01	-2.61	≤8.00	Pass
	06	-1.86		
	11	0.04		
802.11g	01	-7.32	≤8.00	Pass
	06	-6.96		
	11	-4.73		
802.11n(HT20)	01	-9.23	≤8.00	Pass
	06	-7.47		
	11	-5.65		
802.11n(HT40)	03	-6.62	≤8.00	Pass
	06	-7.56		
	09	-9.18		

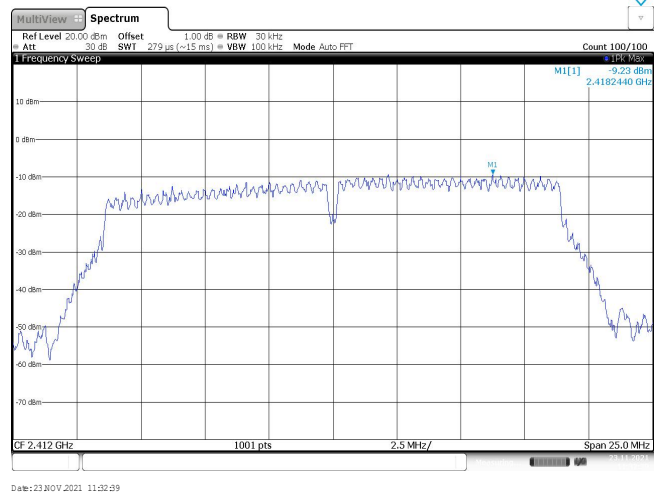
Type:	802.11 b
CH01	 Count 100/100 Ref Level 20.00 dBm Offset 1.00 dB RBW 30 kHz Att 30 dB SWI 1.78 ms VBW 100 kHz Mode Auto Sweep Frequency Sweep N1[1] -2.41 dBm 2.4129910 GHz CF 2.412 GHz 1001 pts 1.6 MHz/ Span 16.0 MHz Date: 23 NOV 2021 11:11:32
CH06	 Count 100/100 Ref Level 20.00 dBm Offset 1.00 dB RBW 30 kHz Att 30 dB SWI 1.78 ms VBW 100 kHz Mode Auto Sweep Frequency Sweep N1[1] -1.36 dBm 2.4359930 GHz CF 2.437 GHz 1001 pts 1.6 MHz/ Span 16.0 MHz Date: 23 NOV 2021 11:15:25
CH11	 Count 100/100 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 Frequency Sweep N1[1] -0.04 dBm 2.4649890 GHz CF 2.462 GHz 1001 pts 1.6 MHz/ Span 16.0 MHz Date: 23 NOV 2021 11:19:03

Type:	802.11 g
CH01	 MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB BW 30 kHz Att 30 dB SWI 279 μs (~15 ms) VBW 100 kHz Mode Auto FFT Count 100/100 Frequency Sweep N1[1] -17.23 dBm 2.4194680 GHz CF 2.412 GHz 1001 pts 2.5 MHz/ Span 25.0 MHz Date: 23 NOV 2021 11:24:38
CH06	 MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB BW 30 kHz Att 30 dB SWI 279 μs (~15 ms) VBW 100 kHz Mode Auto FFT Count 100/100 Frequency Sweep N1[1] -15.96 dBm 2.4295070 GHz CF 2.437 GHz 1001 pts 2.5 MHz/ Span 25.0 MHz Date: 23 NOV 2021 11:27:48
CH11	 MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB BW 30 kHz Att 30 dB SWI 279 μs (~15 ms) VBW 100 kHz Mode Auto FFT Count 100/100 Frequency Sweep N1[1] -17.73 dBm 2.4694680 GHz CF 2.462 GHz 1001 pts 2.5 MHz/ Span 25.0 MHz Date: 23 NOV 2021 11:29:56

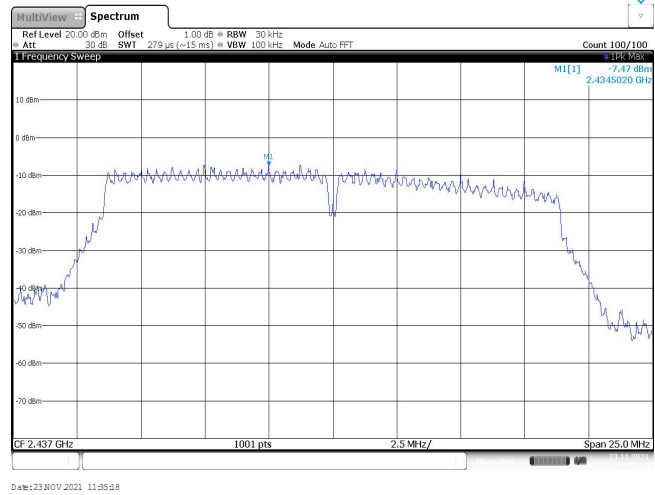
Type:

802.11n(HT20)

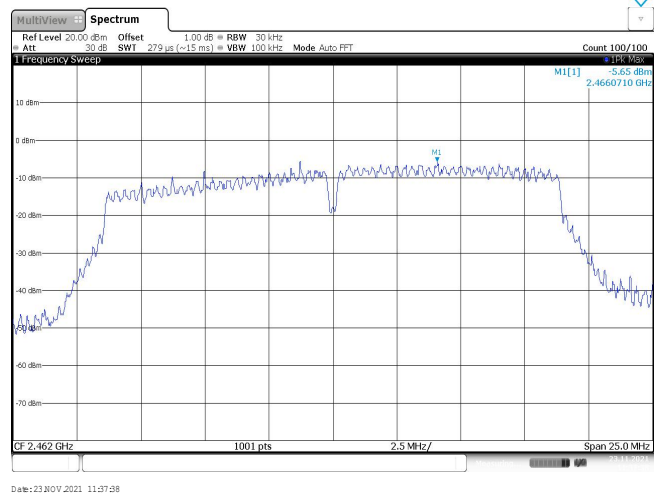
CH01

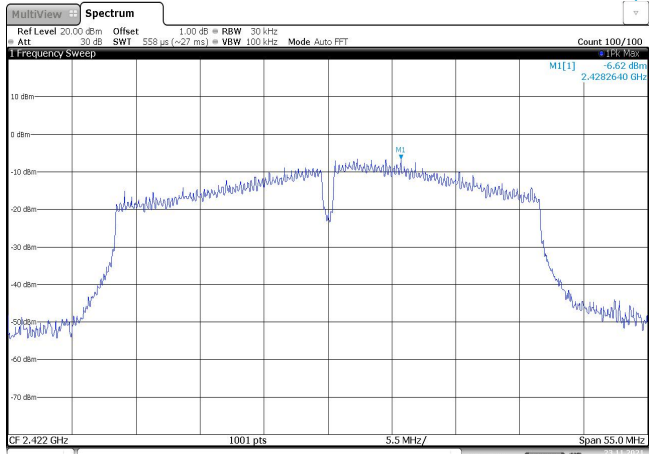
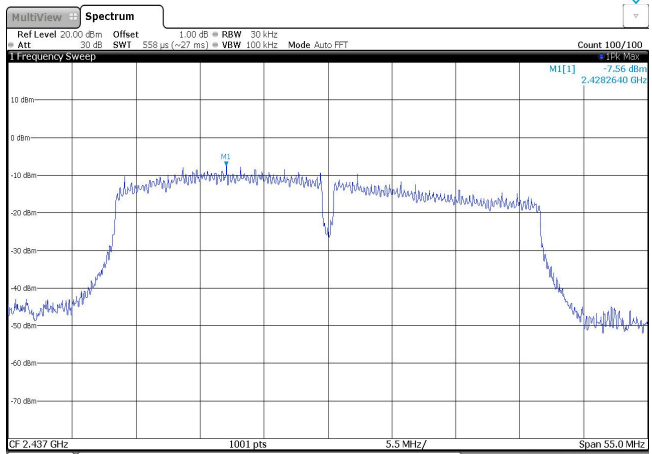
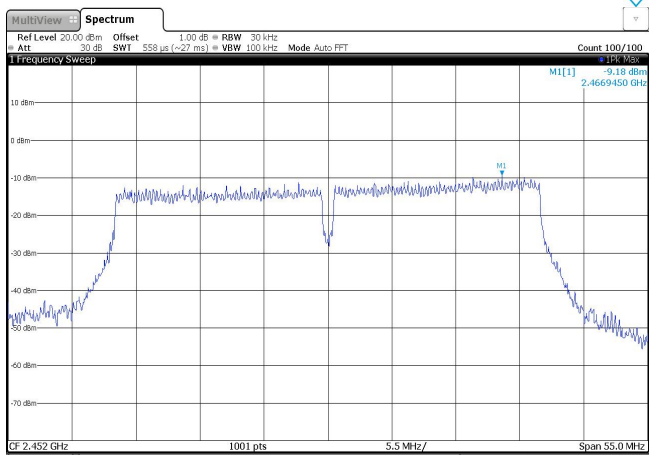


CH06



CH11



Type:	802.11n(HT40)
CH03	 CH03
CH06	 CH06
CH09	 CH09

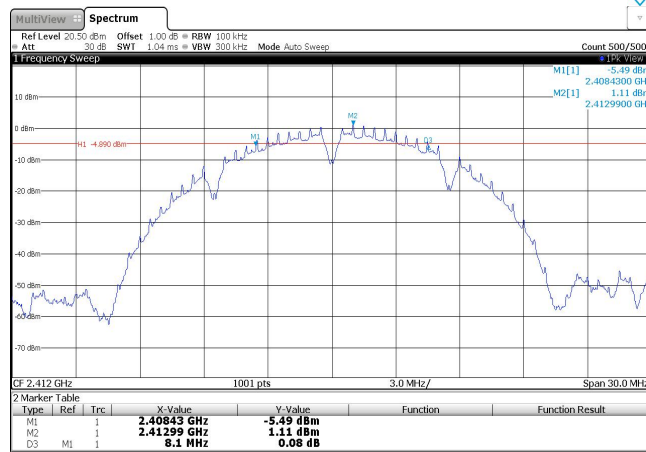
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	01	8.10	≥0.5	Pass
	06	8.13		
	11	8.10		
802.11g	01	15.75	≥0.5	Pass
	06	15.78		
	11	14.49		
802.11n(HT20)	01	16.41	≥0.5	Pass
	06	16.41		
	11	15.12		
802.11n(HT40)	03	22.68	≥0.5	Pass
	06	26.46		
	09	35.82		

Type:

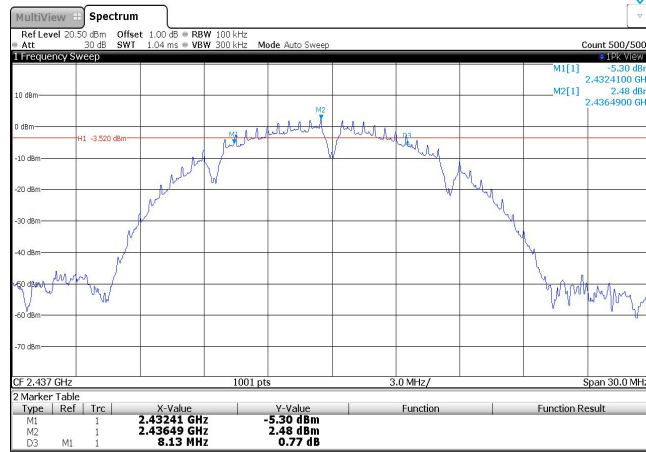
802.11 b

CH01



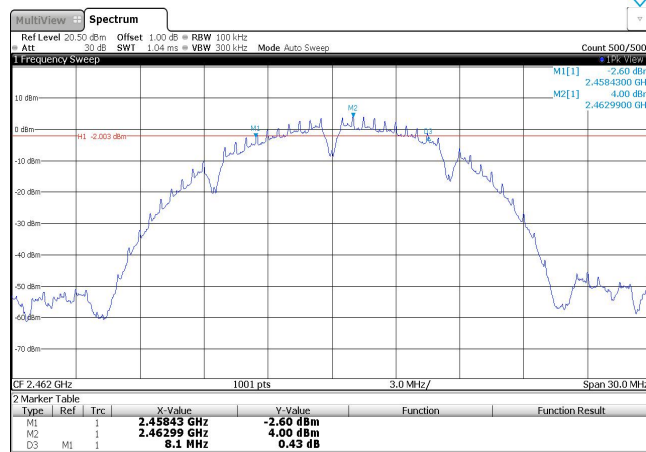
Date: 23 NOV 2021 11:10:41

CH06



Date: 23 NOV 2021 11:13:52

CH11

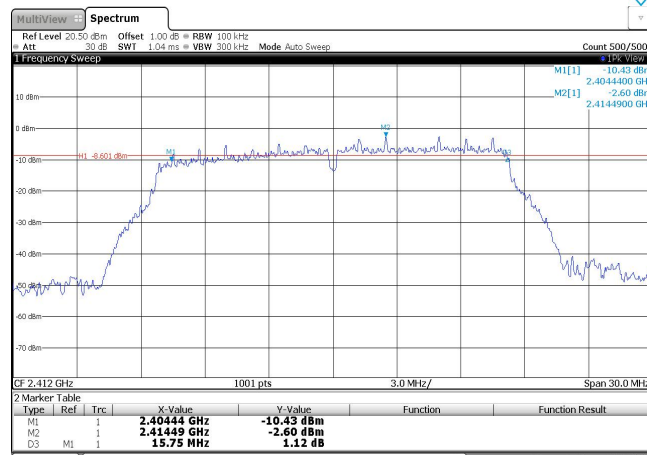


Date: 23 NOV 2021 11:18:16

Type:

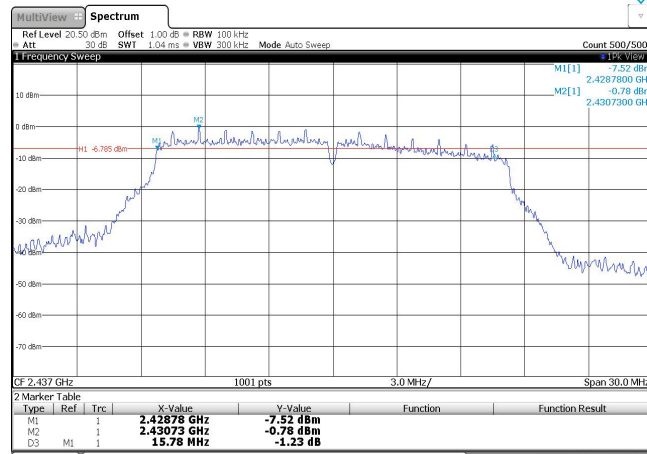
802.11 g

CH01



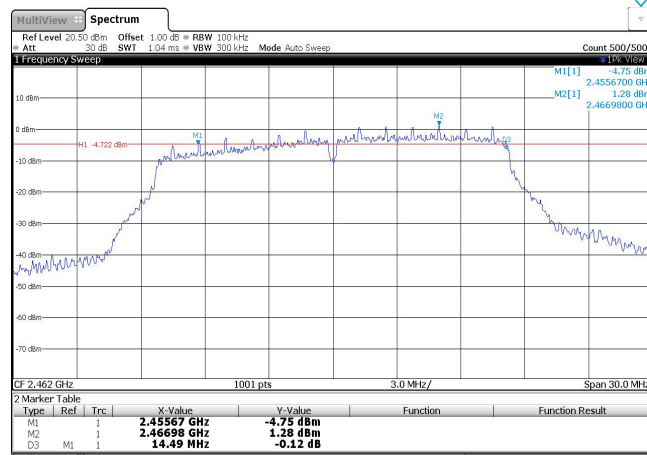
Date: 23 NOV 2021 11:23:46

CH06



Date: 23 NOV 2021 11:27:00

CH11

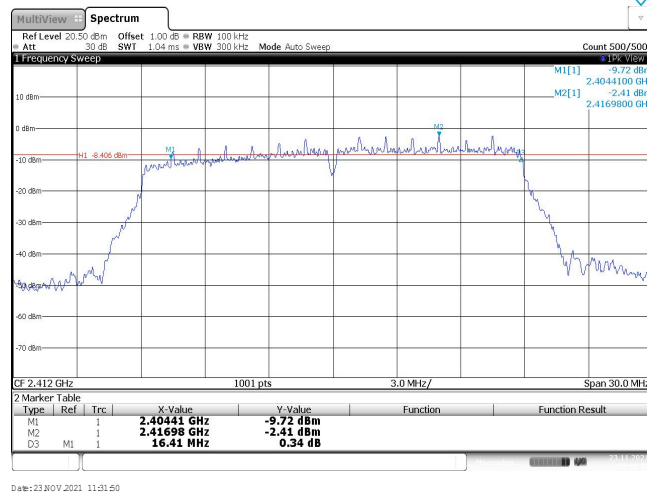


Date: 23 NOV 2021 11:29:07

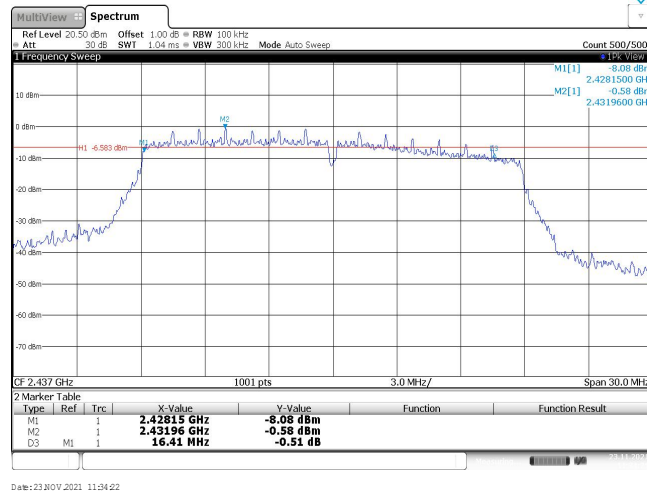
Type:

802.11n(HT20)

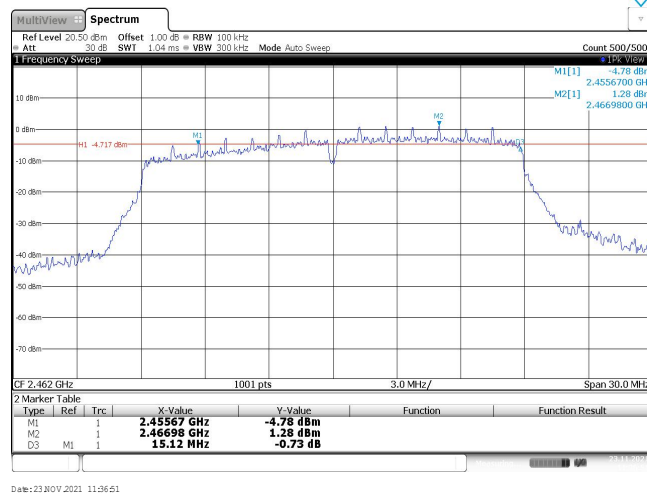
CH01



CH06



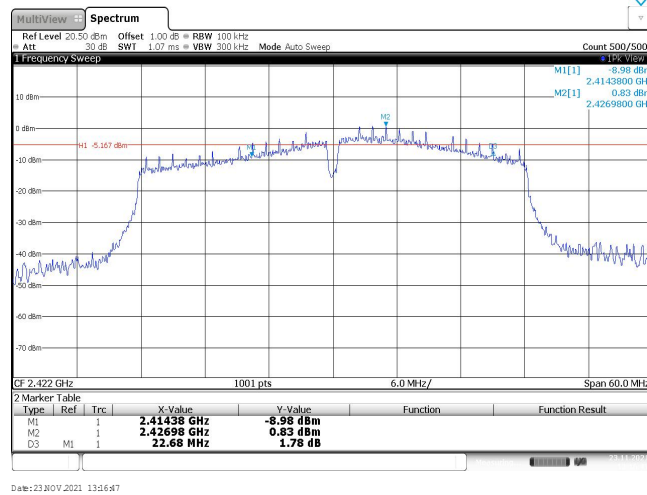
CH11



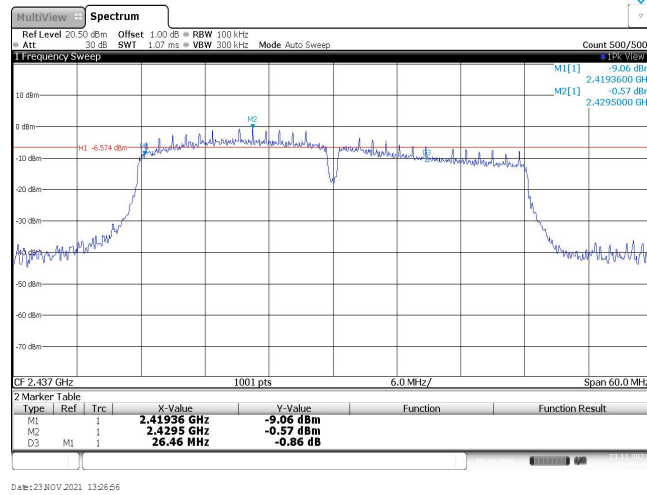
Type:

802.11n(HT40)

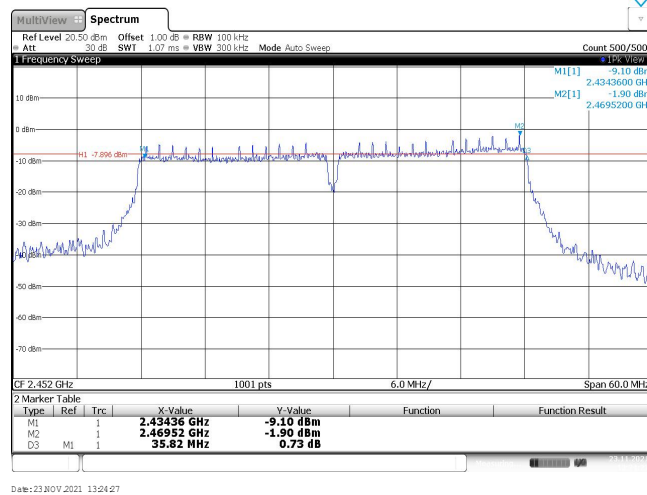
CH03



CH06



CH09



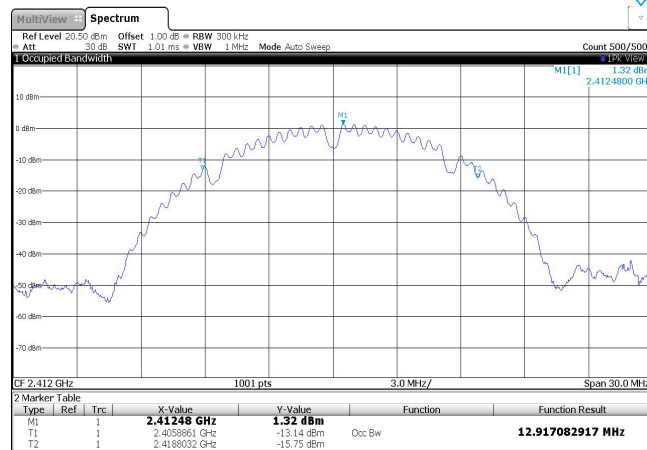
Appendix D: 99% Occupied Bandwidth

Type	Channel	99% Bandwidth (MHz)	Limit (kHz)	Result
802.11b	01	12.92	-	Pass
	06	12.89		
	11	12.77		
802.11g	01	16.90	-	Pass
	06	16.84		
	11	16.72		
802.11n(HT20)	01	17.89	-	Pass
	06	17.86		
	11	17.74		
802.11n(HT40)	03	35.31	-	Pass
	06	35.96		
	09	36.86		

Type:

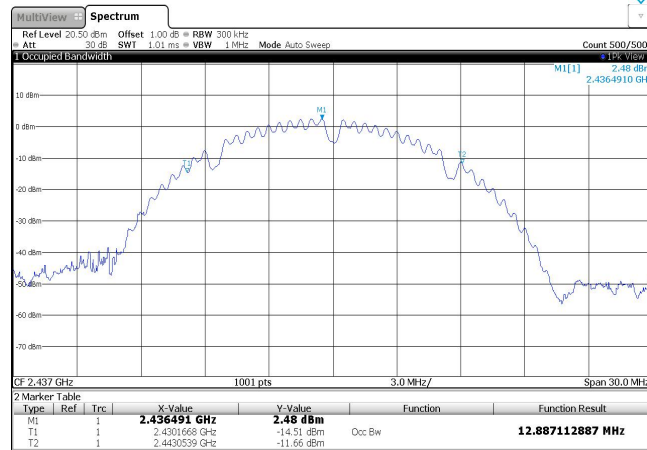
802.11 b

CH01



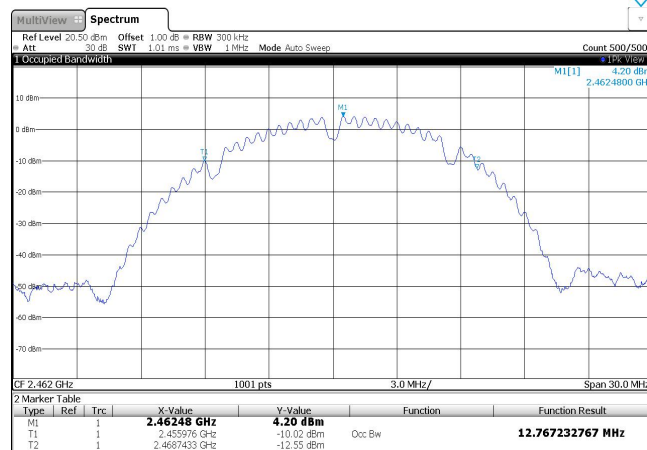
Date: 23 NOV 2021 11:20:49

CH06



Date: 23 NOV 2021 11:14:01

CH11



Date: 23 NOV 2021 11:18:24

Type:

802.11 g

CH01



Date: 23 NOV 2021 11:23:54

CH06



Date: 23 NOV 2021 11:27:49

CH11

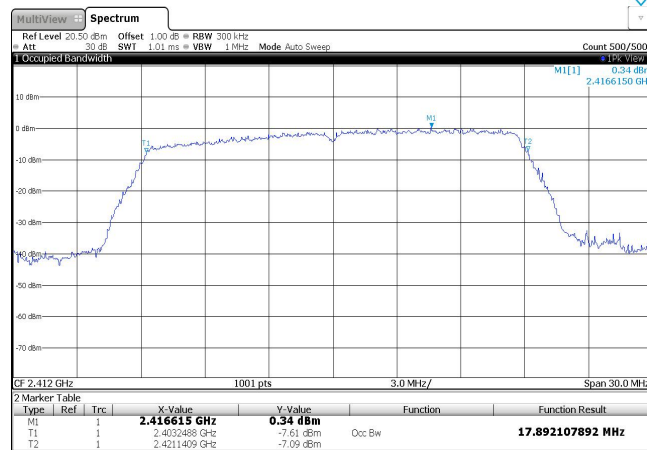


Date: 23 NOV 2021 11:29:16

Type:

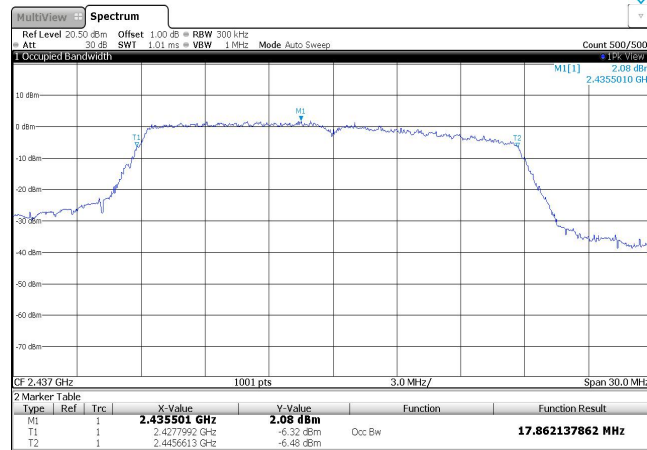
802.11n(HT20)

CH01



Date: 23 NOV 2021 11:31:59

CH06



Date: 23 NOV 2021 11:34:31

CH11



Date: 23 NOV 2021 11:36:59

Type:

802.11n(HT40)

CH03



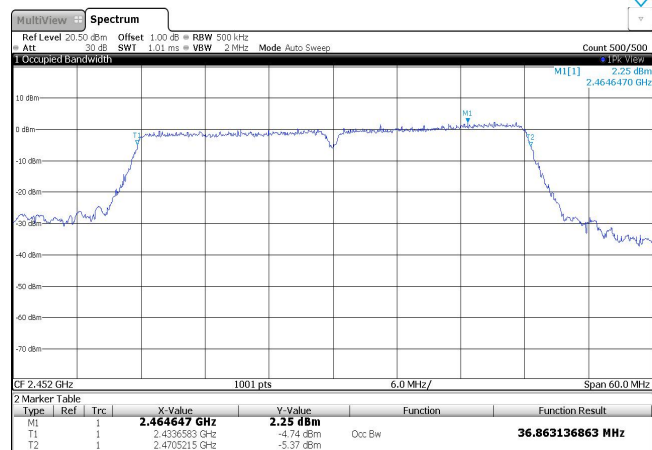
Date: 23 NOV 2021 13:16:56

CH06



Date: 23 NOV 2021 13:22:19

CH09

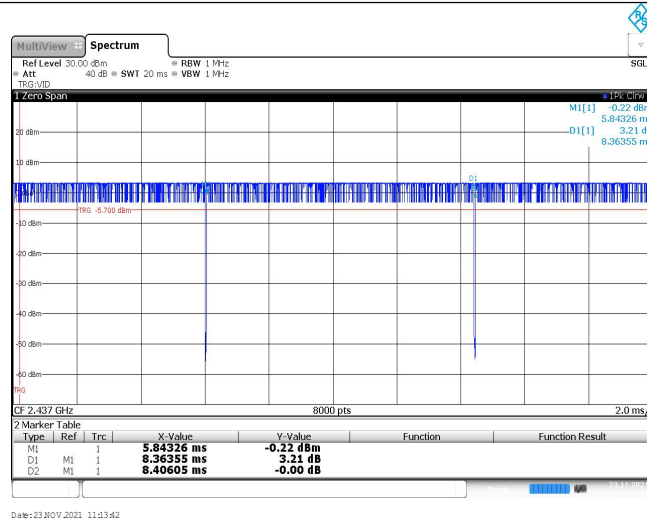


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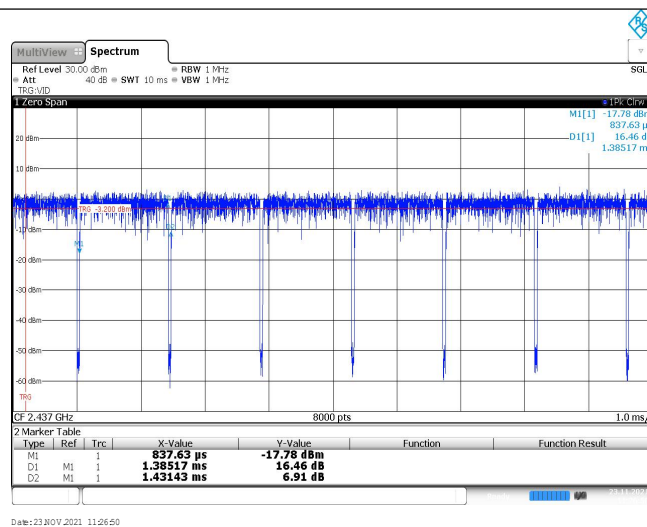
Appendix E: Duty Cycle

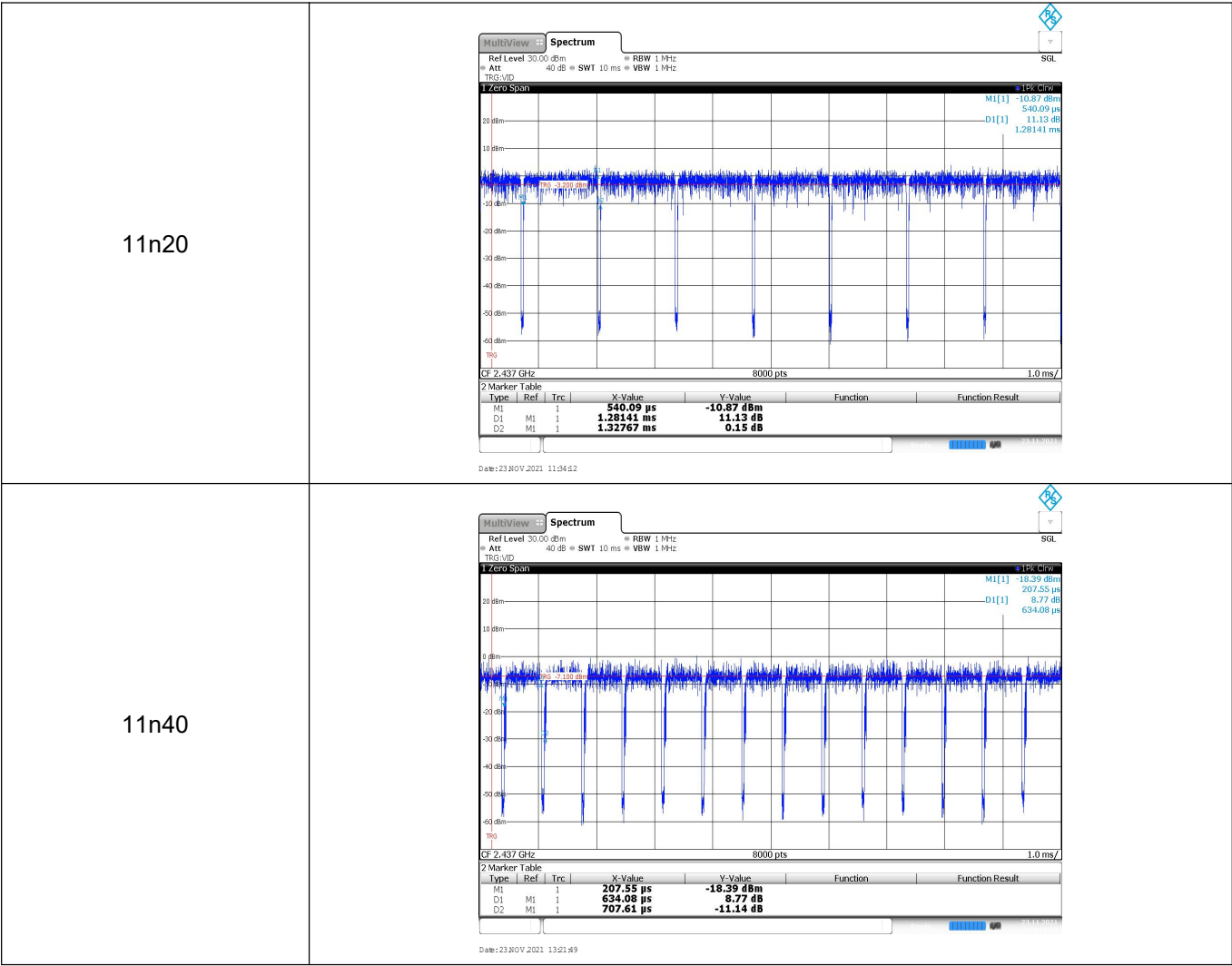
Modulation Type	Test Frequency (MHz)	T _{on} time for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on} time (kHz)
11b	2437	8.36	8.41	99.4%	0.1
11g	2437	1.39	1.43	97.2%	0.7
11n20	2437	1.28	1.33	96.2%	0.8
11n40	2437	0.63	0.71	88.7%	1.6

11b



11g





Appendix F: Band edge and Spurious Emissions (conducted)

Test Item:	Bandedge	Type:	802.11 b
CH01			