

APPENDIX REPORT

Project No.	SHT2111009301EW	Radio Specification	WIFI 2.4G
Test sample No.	YPHT21110093003	Model No.	T60
Start test date	2021-11-18	Finish date	2021-11-19
Temperature	24.6℃	Humidity	34%
Test Engineer	Weiyang Xiang	Auditor	Xiaodong Zhu

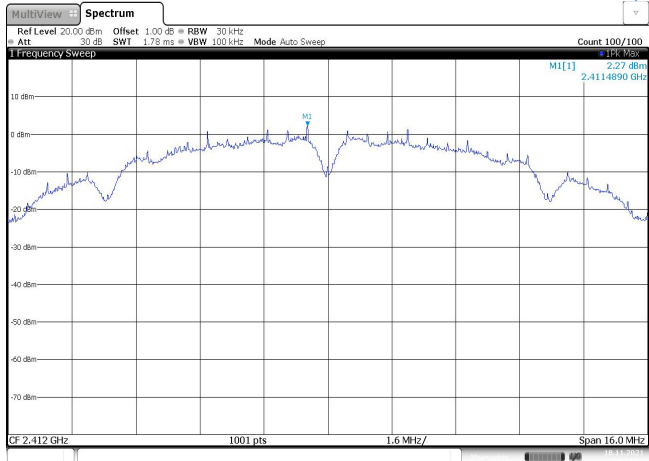
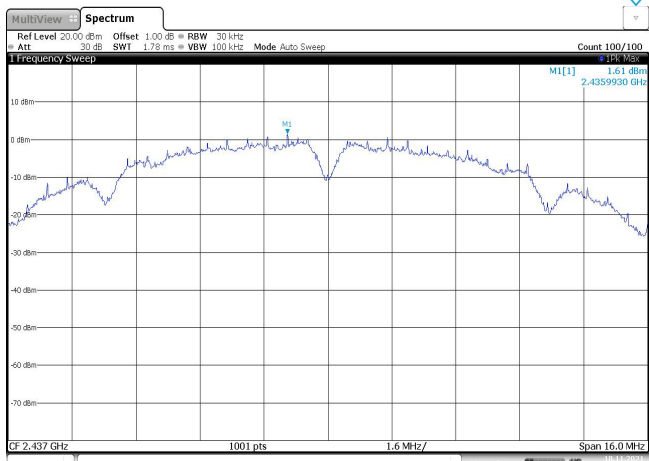
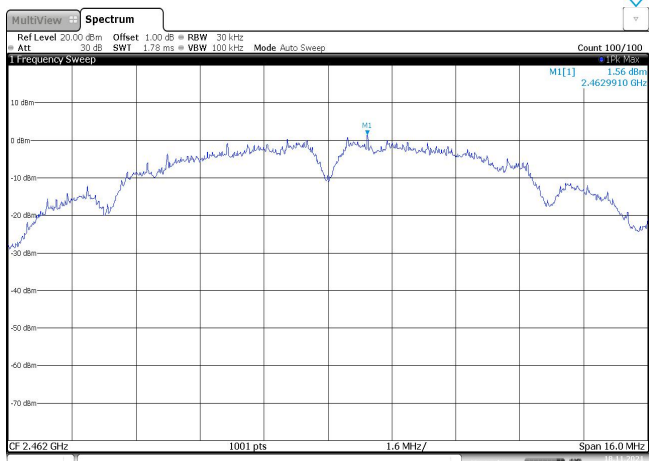
Appendix clause	Test item	Result
A	Conducted Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty Cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

Appendix A: Conducted Peak Output Power

Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
802.11b	01	14.92	12.48	≤ 30.00	Pass
	06	15.40	12.97		
	11	15.17	12.77		
802.11g	01	15.06	13.09	≤ 30.00	Pass
	06	15.56	13.56		
	11	14.97	12.96		
802.11n (HT20)	01	15.23	13.10	≤ 30.00	Pass
	06	15.50	13.66		
	11	14.99	13.06		
802.11n(HT40)	03	14.72	12.55	≤ 30.00	Pass
	06	14.61	12.43		
	09	15.30	13.13		

Appendix B: Power Spectral Density

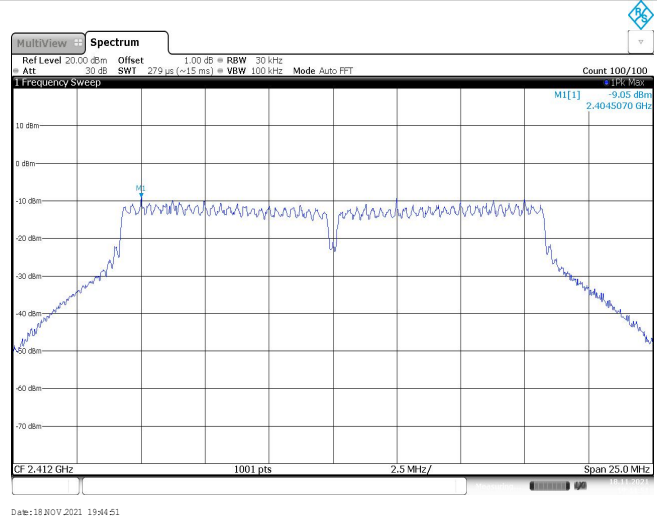
Type	Channel	Power Spectral Density (dBm/30KHz)	Limit (dBm/3KHz)	Result
802.11b	01	2.27	≤8.00	Pass
	06	1.61		
	11	1.56		
802.11g	01	-9.05	≤8.00	Pass
	06	-8.97		
	11	-8.73		
802.11n(HT20)	01	-8.40	≤8.00	Pass
	06	-8.44		
	11	-7.85		
802.11n(HT40)	03	-11.85	≤8.00	Pass
	06	-12.54		
	09	-12.52		

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 N1[1] 2.414890 GHz CF 2.412 GHz 1001 pts 1.6 MHz/ Span 16.0 MHz Date: 18 NOV 2021 19:34:08
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 N1[1] 2.4359930 GHz CF 2.437 GHz 1001 pts 1.6 MHz/ Span 16.0 MHz Date: 18 NOV 2021 19:36:45
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 N1[1] 2.4629910 GHz CF 2.462 GHz 1001 pts 1.6 MHz/ Span 16.0 MHz Date: 18 NOV 2021 19:38:33

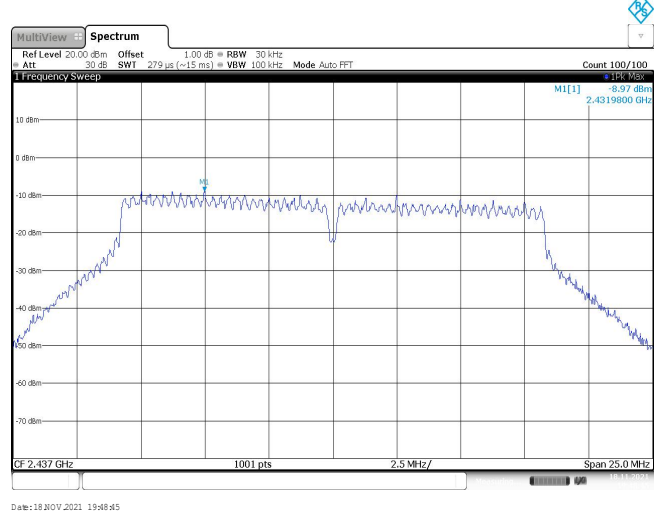
Type:

802.11 g

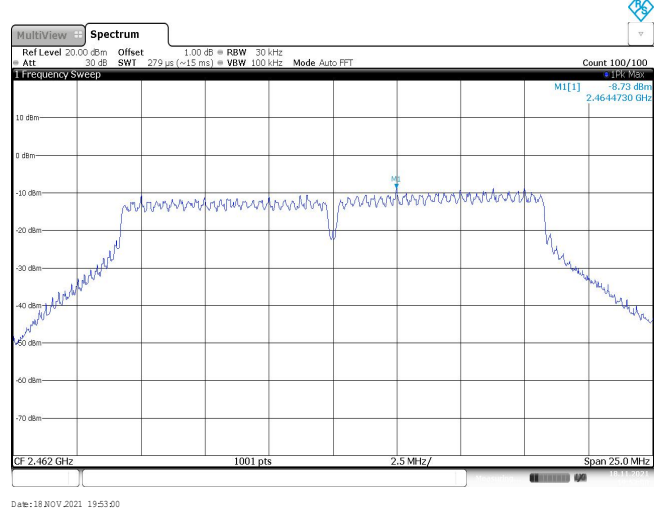
CH01

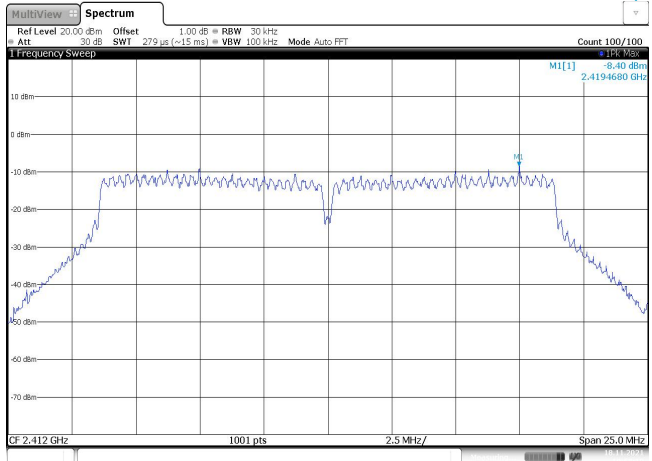
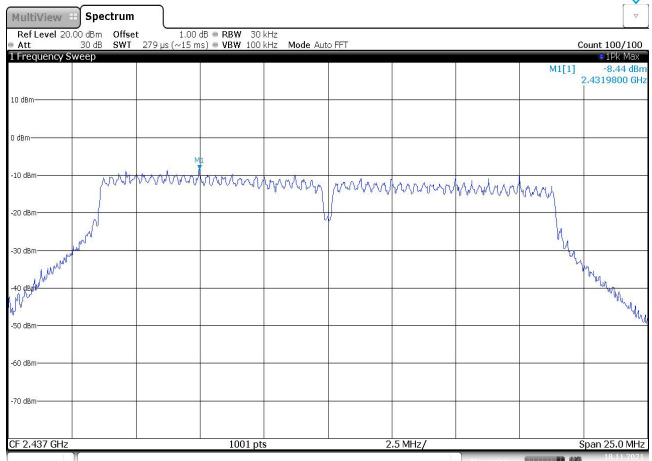
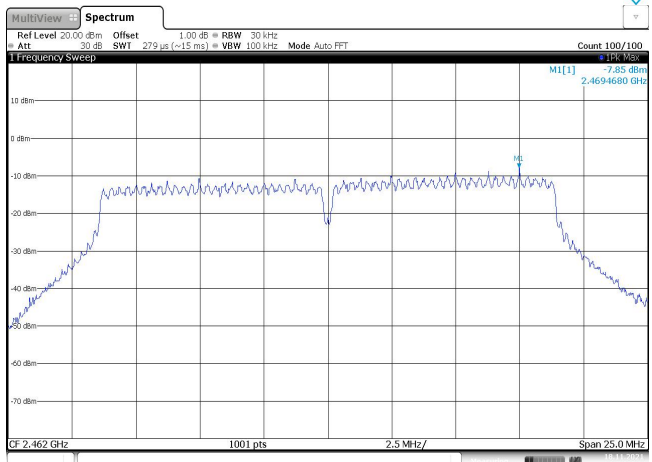


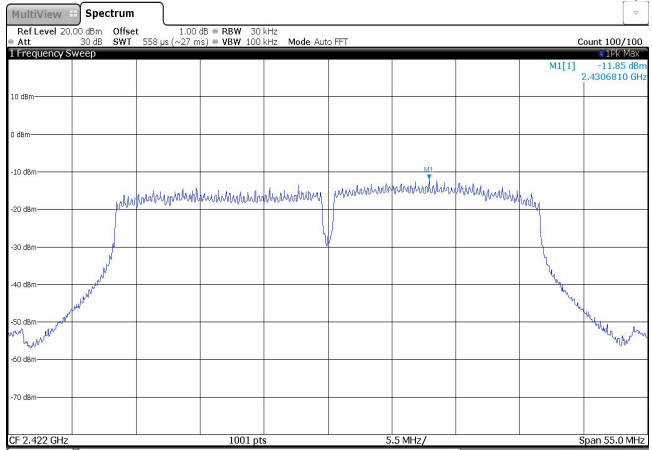
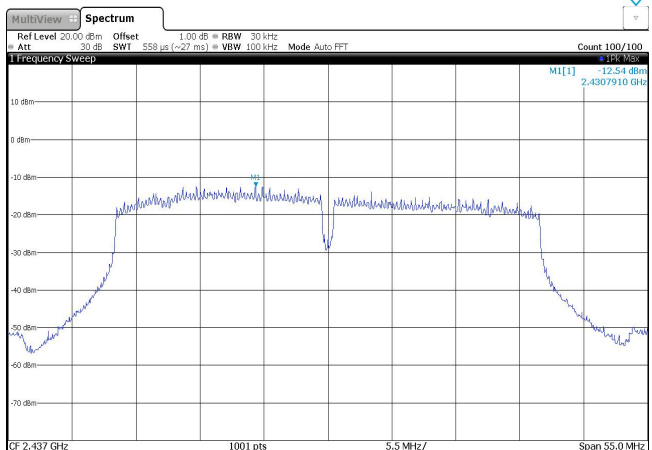
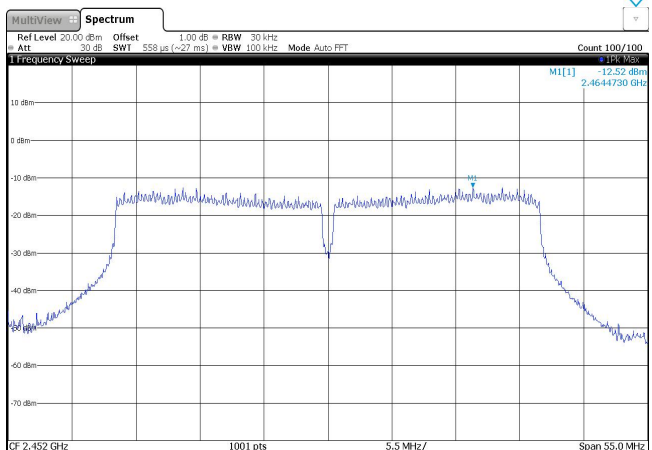
CH06



CH11



Type:	802.11n(HT20)
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 1 Frequency Sweep N1[1] -3.44 dBm 2.4194680 GHz CF 2.412 GHz 1001 pts 2.5 MHz/ Span 25.0 MHz Date: 18 NOV 2021 19:58:20
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 1 Frequency Sweep N1[1] -3.44 dBm 2.4319800 GHz CF 2.437 GHz 1001 pts 2.5 MHz/ Span 25.0 MHz Date: 18 NOV 2021 20:03:09
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 1 Frequency Sweep N1[1] -3.44 dBm 2.4694680 GHz CF 2.462 GHz 1001 pts 2.5 MHz/ Span 25.0 MHz Date: 18 NOV 2021 20:09:31

Type:	802.11n(HT40)
CH03	 MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB BW 30 kHz Att 30 dB SWI 558 μs (~27 ms) VBW 100 kHz Mode Auto FFT Count 100/100 Frequency Sweep M1[1] -11.43 dBm 2.4306810 GHz CF 2.422 GHz 1001 pts 5.5 MHz/ Span 55.0 MHz Date: 18 NOV 2021 20:27:47
CH06	 MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB BW 30 kHz Att 30 dB SWI 558 μs (~27 ms) VBW 100 kHz Mode Auto FFT Count 100/100 Frequency Sweep M1[1] -12.54 dBm 2.4307910 GHz CF 2.437 GHz 1001 pts 5.5 MHz/ Span 55.0 MHz Date: 18 NOV 2021 20:23:44
CH09	 MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB BW 30 kHz Att 30 dB SWI 558 μs (~27 ms) VBW 100 kHz Mode Auto FFT Count 100/100 Frequency Sweep M1[1] -12.53 dBm 2.4644730 GHz CF 2.452 GHz 1001 pts 5.5 MHz/ Span 55.0 MHz Date: 18 NOV 2021 20:26:53

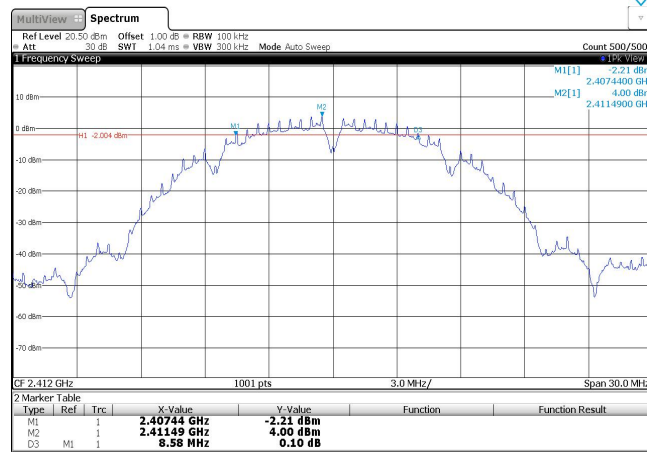
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	01	8.58	≥0.5	Pass
	06	8.16		
	11	8.61		
802.11g	01	16.41	≥0.5	Pass
	06	15.99		
	11	16.14		
802.11n(HT20)	01	17.67	≥0.5	Pass
	06	16.44		
	11	17.25		
802.11n(HT40)	03	35.22	≥0.5	Pass
	06	35.22		
	09	35.94		

Type:

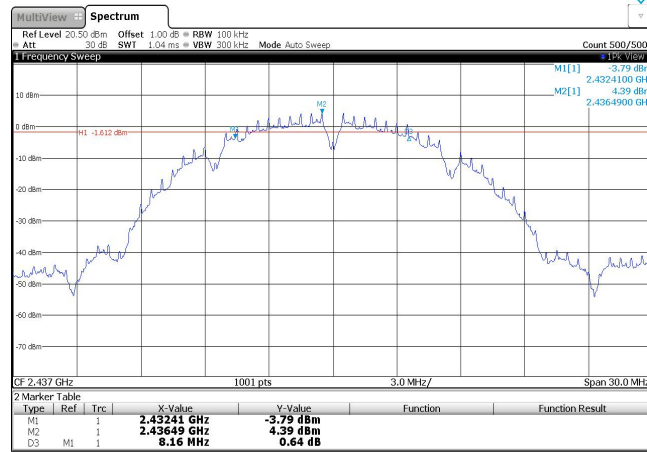
802.11 b

CH01



Date: 18 NOV 2021 19:33:08

CH06



Date: 18 NOV 2021 19:35:52

CH11

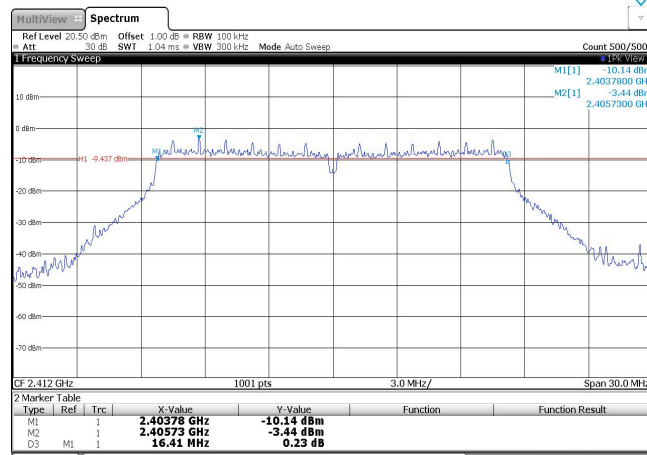


Date: 18 NOV 2021 19:38:22

Type:

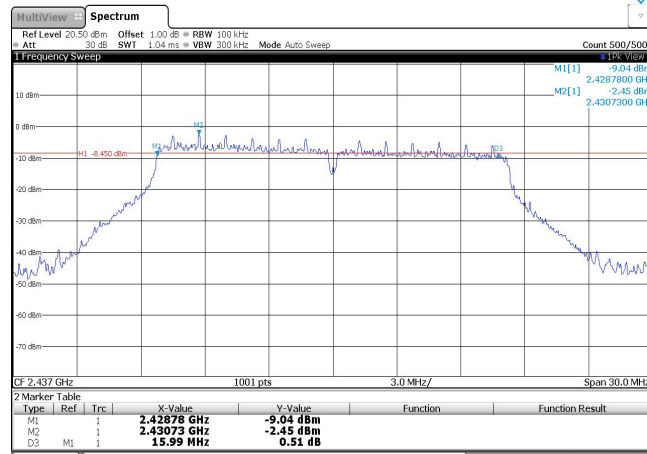
802.11 g

CH01



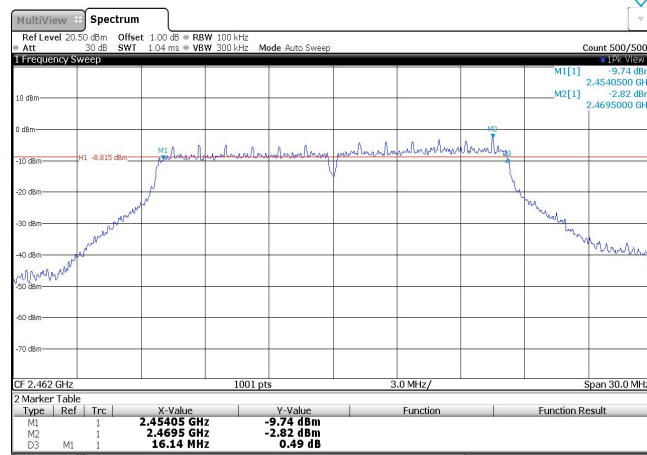
Date: 18 NOV 2021 19:42:33

CH06



Date: 18 NOV 2021 19:46:49

CH11

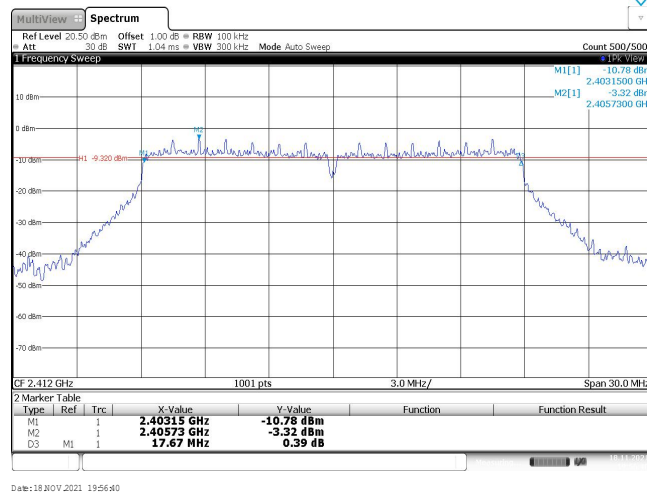


Date: 18 NOV 2021 19:50:03

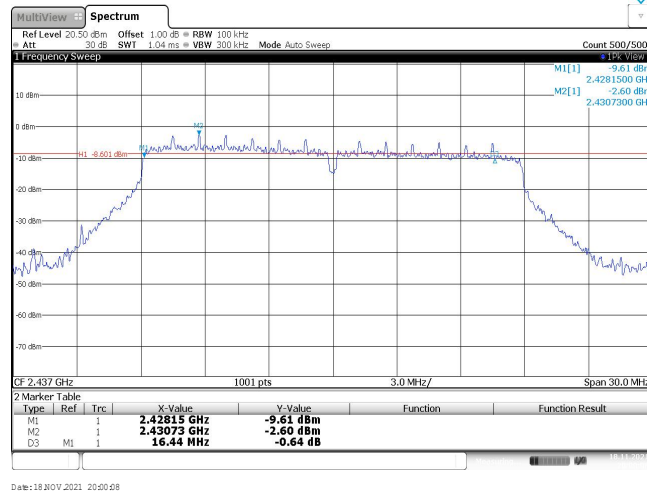
Type:

802.11n(HT20)

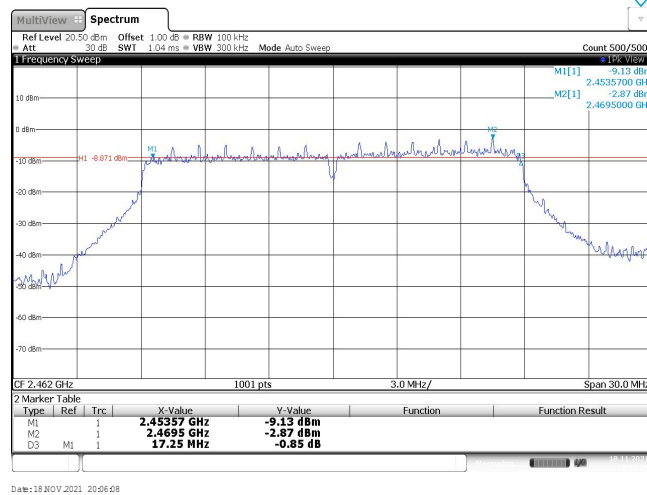
CH01



CH06



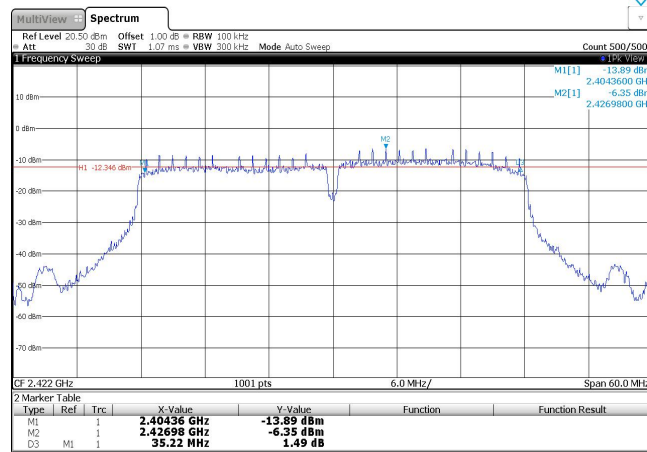
CH11



Type:

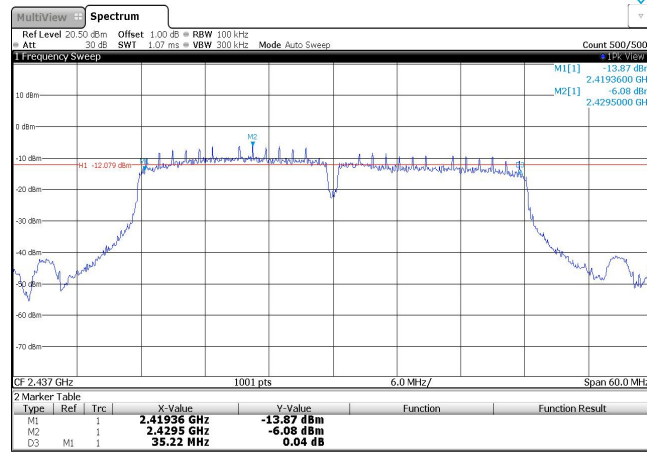
802.11n(HT40)

CH03



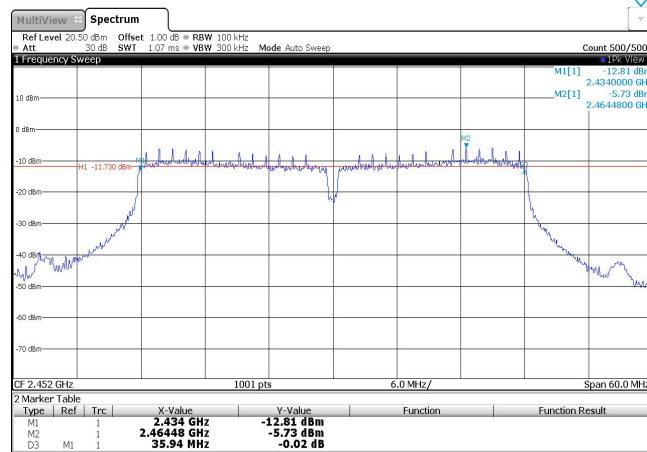
Date: 18 NOV 2021 20:24:07

CH06



Date: 18 NOV 2021 20:21:28

CH09



Date: 18 NOV 2021 20:25:08

Appendix D: 99% Occupied Bandwidth

Type	Channel	99% Bandwidth (MHz)	Limit (kHz)	Result
802.11b	01	13.55	-	Pass
	06	13.37		
	11	12.92		
802.11g	01	17.32	-	Pass
	06	17.14		
	11	17.17		
802.11n(HT20)	01	18.28	-	Pass
	06	18.07		
	11	18.13		
802.11n(HT40)	03	36.20	-	Pass
	06	36.08		
	09	36.80		

Type:

802.11 b

CH01



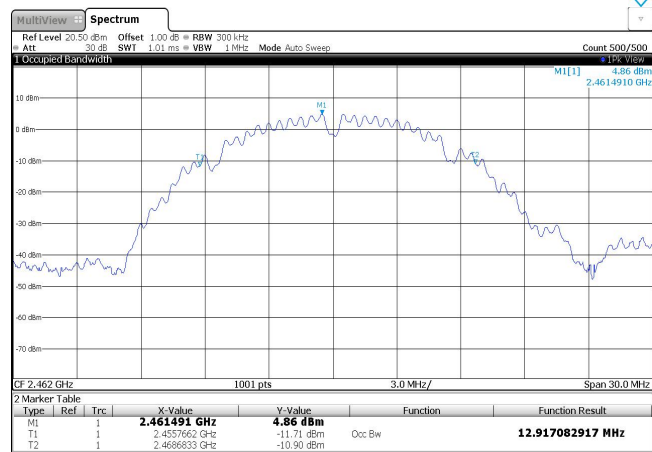
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CH06



Date: 18 NOV 2021 19:36:01

CH11

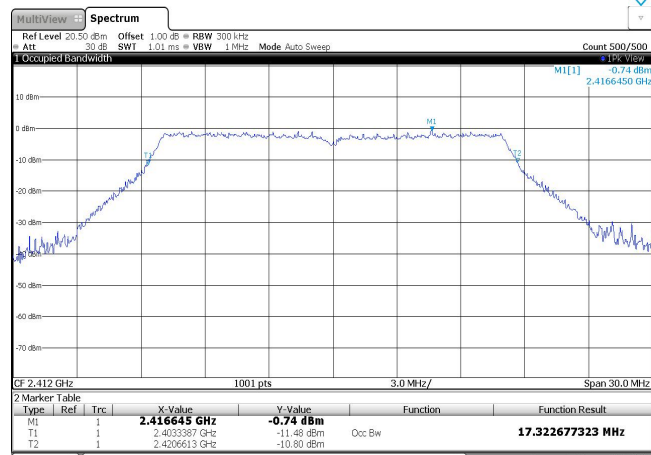


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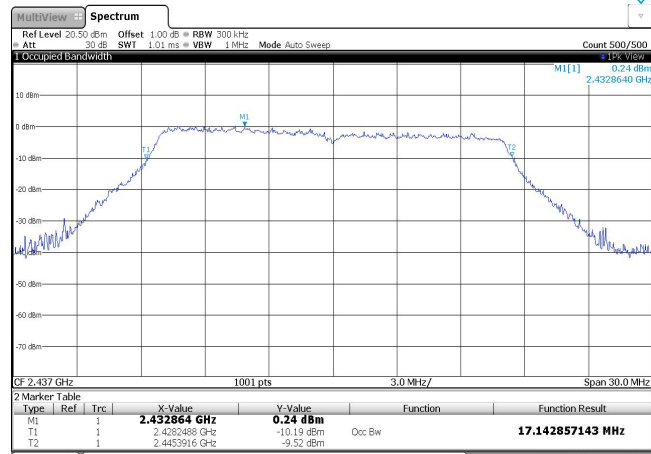
802.11 g

CH01



Date: 18 NOV 2021 19:42:41

CH06



Date: 18 NOV 2021 19:46:58

CH11

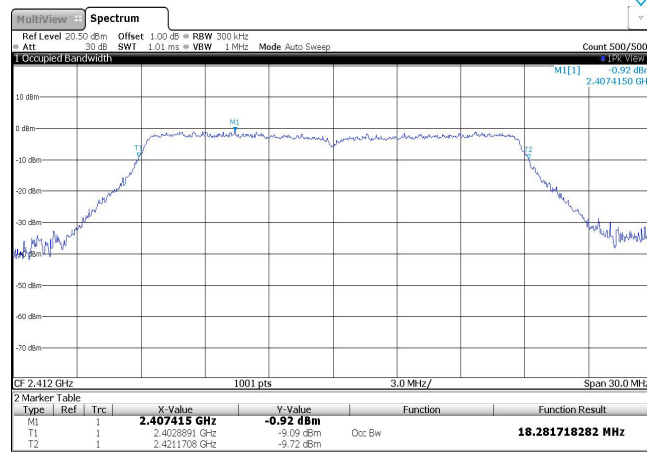


Date: 18 NOV 2021 19:50:11

Type:

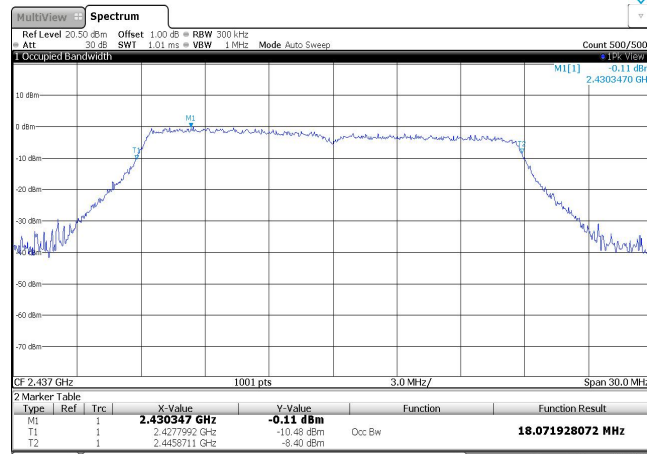
802.11n(HT20)

CH01



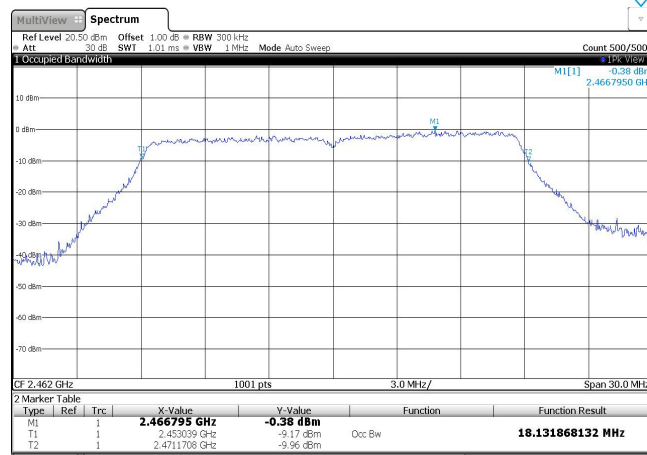
Date: 18 NOV 2021 19:56:48

CH06



Date: 18 NOV 2021 20:00:27

CH11

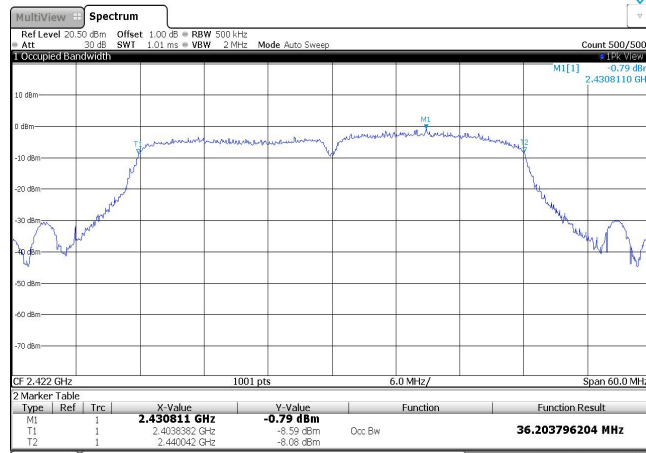


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Type:

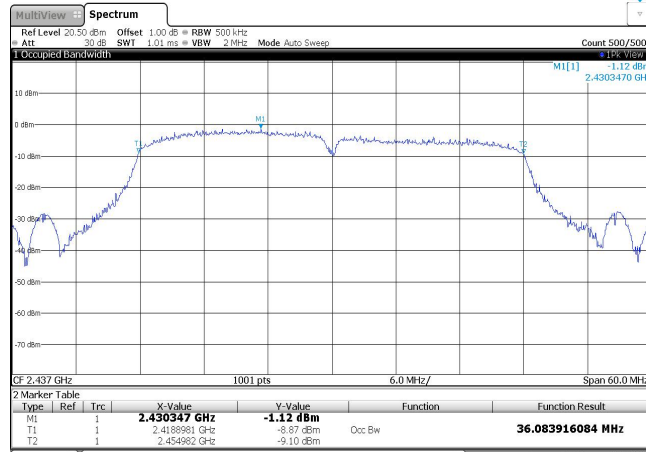
802.11n(HT40)

CH03



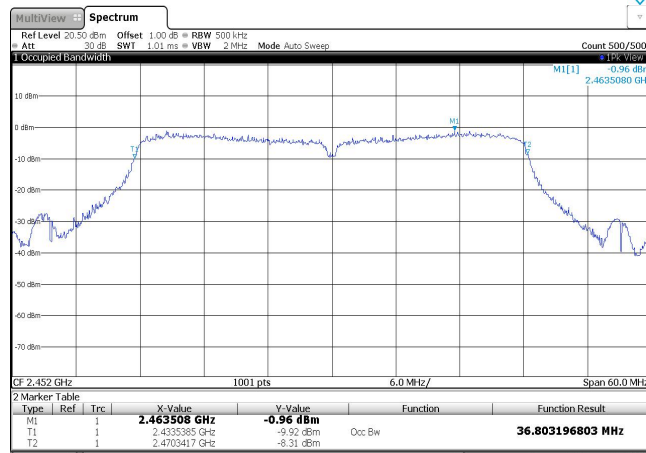
Date: 18 NOV 2021 20:24:56

CH06



Date: 18 NOV 2021 20:21:36

CH09

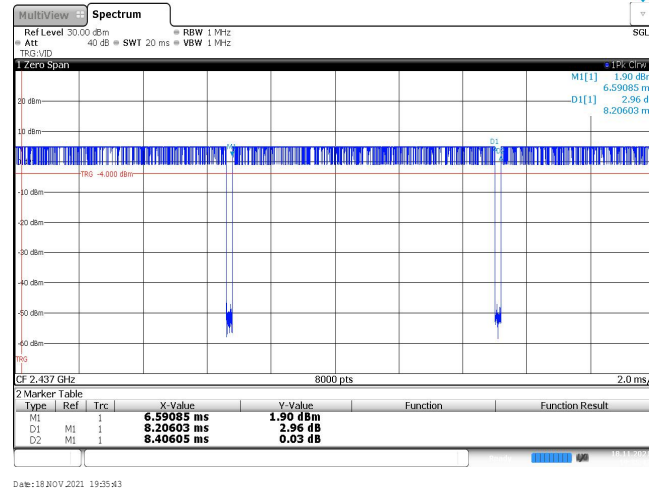


Date: 18 NOV 2021 20:25:56

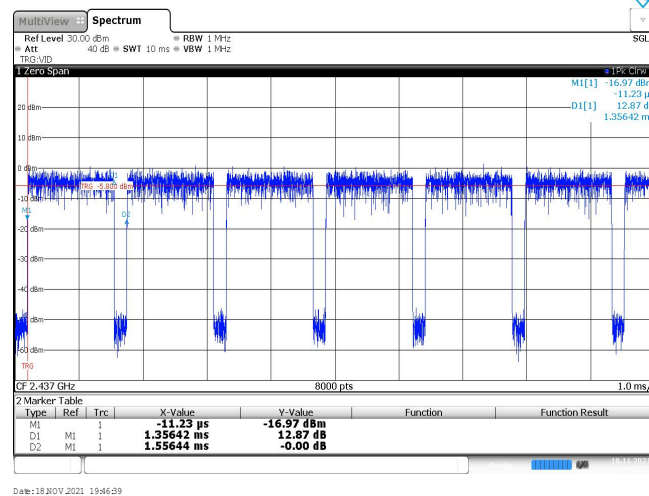
Appendix E: Duty Cycle

Modulation Type	Test Frequency (MHz)	T _{on} time for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on} time (kHz)
11b	2437	8.21	8.41	97.6%	0.1
11g	2437	1.36	1.56	87.2%	0.7
11n20	2437	1.27	1.47	86.4%	0.8
11n40	2437	0.63	0.83	75.9%	1.6

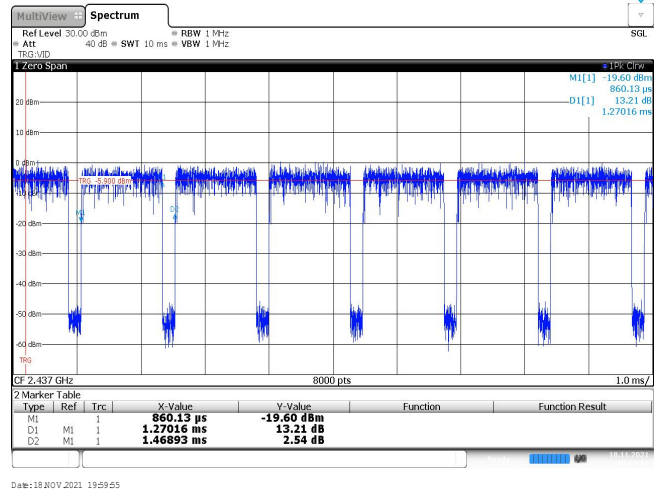
11b



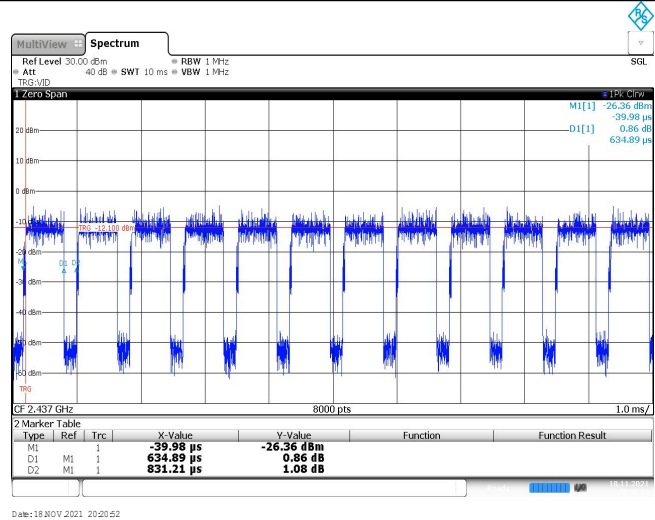
11g



11n20



11n40



Appendix F: Band edge and Spurious Emissions (conducted)

Test Item:	Bandedge	Type:	802.11 b
CH01			