

APPENDIX REPORT

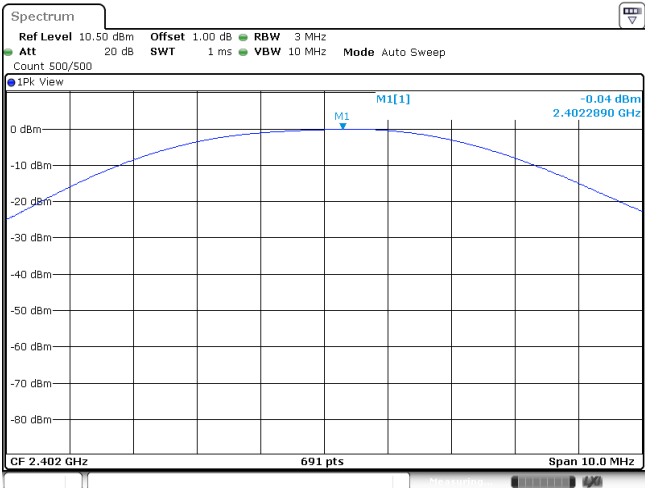
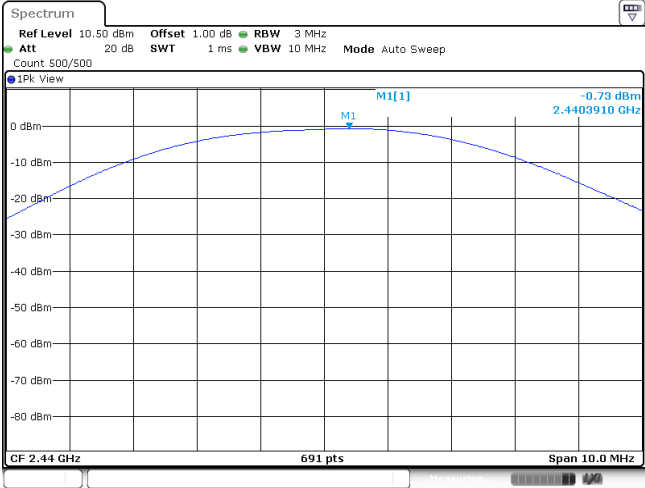
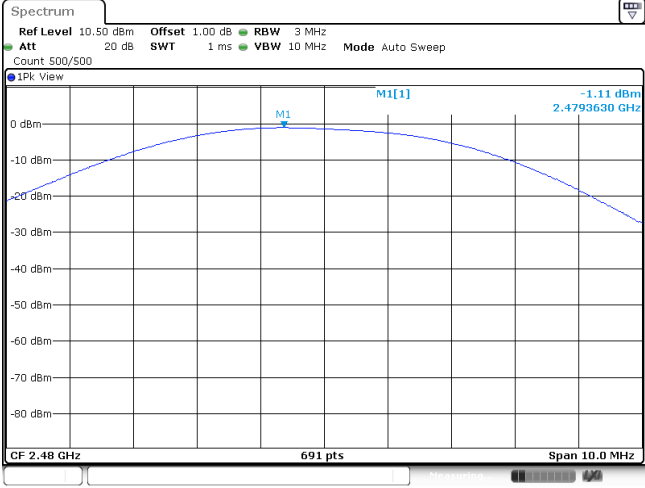
Project No.	SHT2304073101EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT23040731001	Model No.	CT9-T-QP-UV
Start test date	2023-05-10	Finish date	2023-05-10
Temperature	24.5℃	Humidity	63%
Test Engineer	Xiaoqin Li	Auditor	Xiaodong Zheo

Appendix clause	Test item	Result
A	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: Peak Output Power

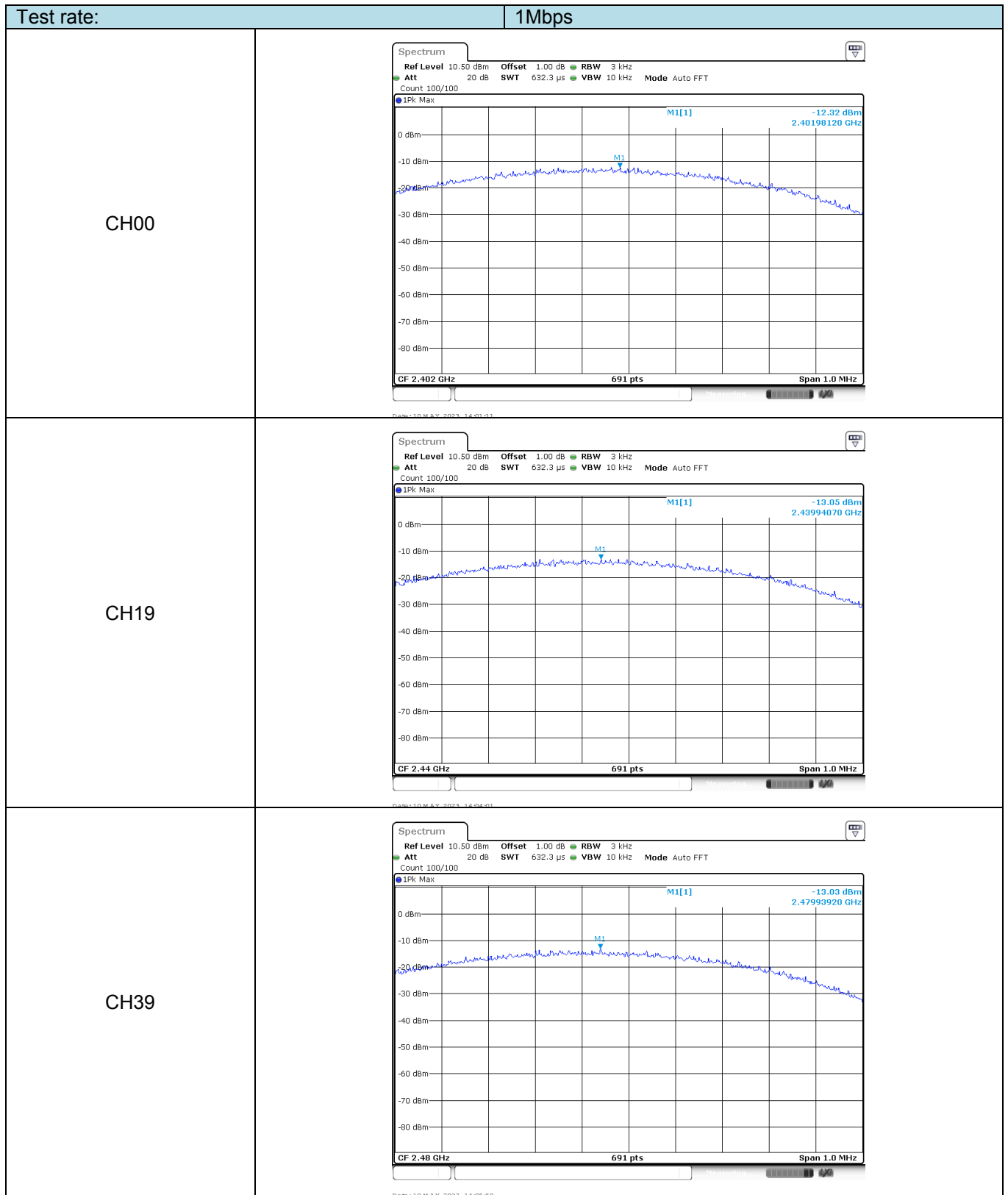
Test rate	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
1Mbps	00	-0.26	-0.30	≤ 30.00	Pass
	19	-0.97	-1.02		
	39	-1.47	-1.51		
2Mbps	00	-0.04	-0.32	≤ 30.00	Pass
	19	-0.73	-0.93		
	39	-1.11	-1.35		

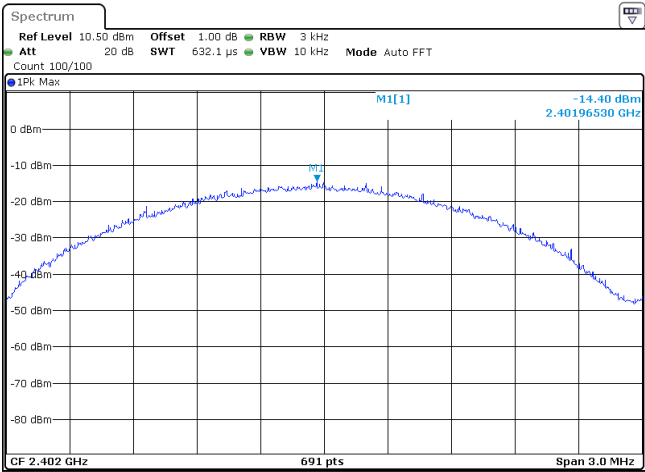
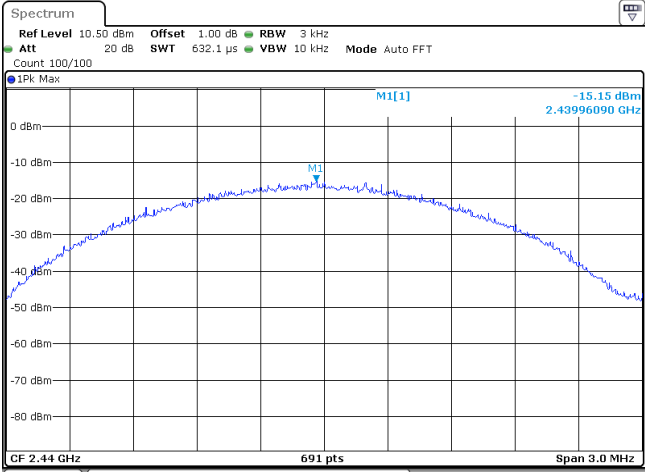
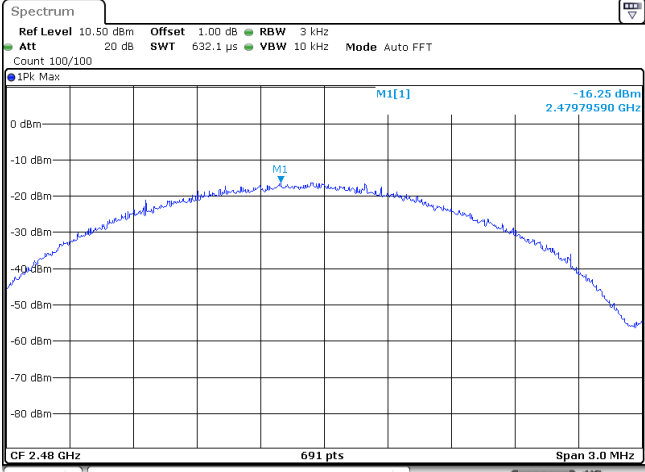
Test rate: 1Mbps					
CH00	Spectrum Ref Level 10.50 dBm Att 20 dB Count 500/500 Offset 1.00 dB SWT 1 ms RBW 2 MHz VBW 5 MHz Mode Auto Sweep IPk View 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -80 dBm M1 M1[1] -0.26 dBm 2.40218090 GHz CF 2.402 GHz 691 pts Span 5.0 MHz <tr><td>CH19</td><td> Spectrum Ref Level 10.50 dBm Att 20 dB Count 500/500 Offset 1.00 dB SWT 1 ms RBW 2 MHz VBW 5 MHz Mode Auto Sweep IPk View 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -80 dBm M1 M1[1] -0.97 dBm 2.44015920 GHz CF 2.44 GHz 691 pts Span 5.0 MHz <tr><td>CH39</td><td> Spectrum Ref Level 10.50 dBm Att 20 dB Count 500/500 Offset 1.00 dB SWT 1 ms RBW 2 MHz VBW 5 MHz Mode Auto Sweep IPk View 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -80 dBm M1 M1[1] -1.47 dBm 2.47964540 GHz CF 2.48 GHz 691 pts Span 5.0 MHz </td></tr></td></tr>	CH19	Spectrum Ref Level 10.50 dBm Att 20 dB Count 500/500 Offset 1.00 dB SWT 1 ms RBW 2 MHz VBW 5 MHz Mode Auto Sweep IPk View 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -80 dBm M1 M1[1] -0.97 dBm 2.44015920 GHz CF 2.44 GHz 691 pts Span 5.0 MHz <tr><td>CH39</td><td> Spectrum Ref Level 10.50 dBm Att 20 dB Count 500/500 Offset 1.00 dB SWT 1 ms RBW 2 MHz VBW 5 MHz Mode Auto Sweep IPk View 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -80 dBm M1 M1[1] -1.47 dBm 2.47964540 GHz CF 2.48 GHz 691 pts Span 5.0 MHz </td></tr>	CH39	Spectrum Ref Level 10.50 dBm Att 20 dB Count 500/500 Offset 1.00 dB SWT 1 ms RBW 2 MHz VBW 5 MHz Mode Auto Sweep IPk View 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -80 dBm M1 M1[1] -1.47 dBm 2.47964540 GHz CF 2.48 GHz 691 pts Span 5.0 MHz
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Test rate: 2Mbps	
CH00	 Ref Level 10.50 dBm Att 20 dB Offset 1.00 dB RBW 3 MHz Mode Auto Sweep Count 500/500 CF 2.402 GHz 691 pts Span 10.0 MHz
CH19	 Ref Level 10.50 dBm Att 20 dB Offset 1.00 dB RBW 3 MHz Mode Auto Sweep Count 500/500 CF 2.44 GHz 691 pts Span 10.0 MHz
CH39	 Ref Level 10.50 dBm Att 20 dB Offset 1.00 dB RBW 3 MHz Mode Auto Sweep Count 500/500 CF 2.48 GHz 691 pts Span 10.0 MHz

Appendix B: Power Spectral Density

Test rate	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
1Mbps	00	-12.32	≤8.00	Pass
	19	-13.05		
	39	-13.03		
2Mbps	00	-14.40	≤8.00	Pass
	19	-15.15		
	39	-16.25		



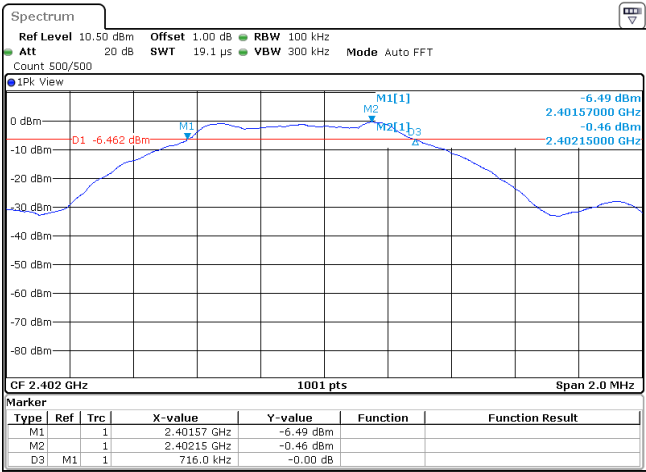
Test rate: 2Mbps	
CH00	 2023-14-07-05
CH19	 2023-14-07-07
CH39	 2023-14-07-08

Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
1Mbps	00	716.00	≥500	Pass
	19	716.00		
	39	722.00		
2Mbps	00	1305.00	≥500	Pass
	19	1295.00		
	39	1380.00		

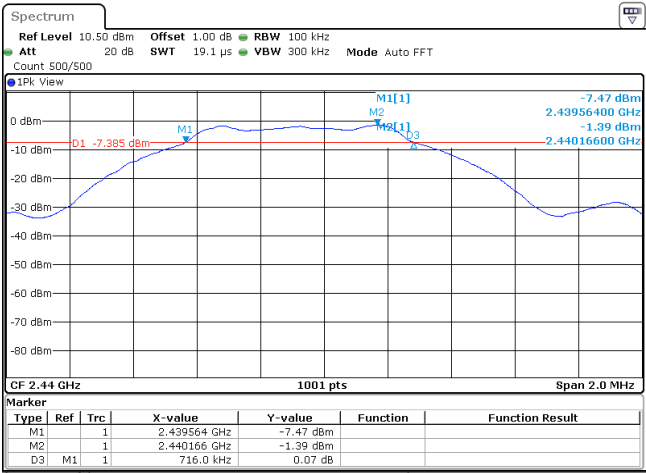
Test rate: 1Mbps

CH00



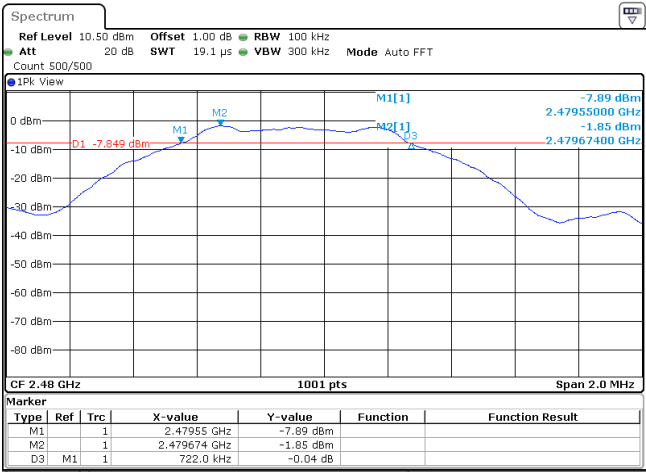
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CH19

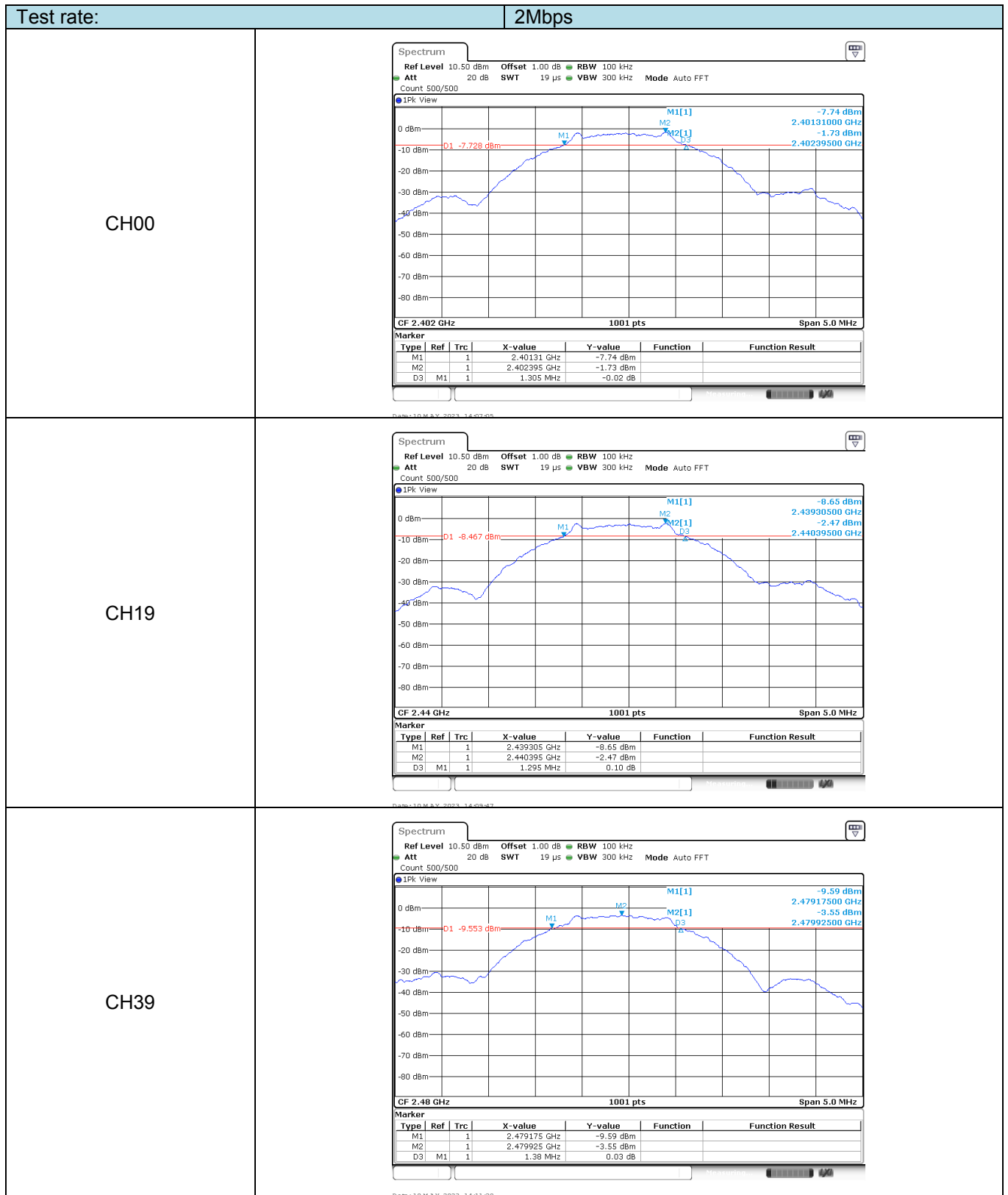


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CH39

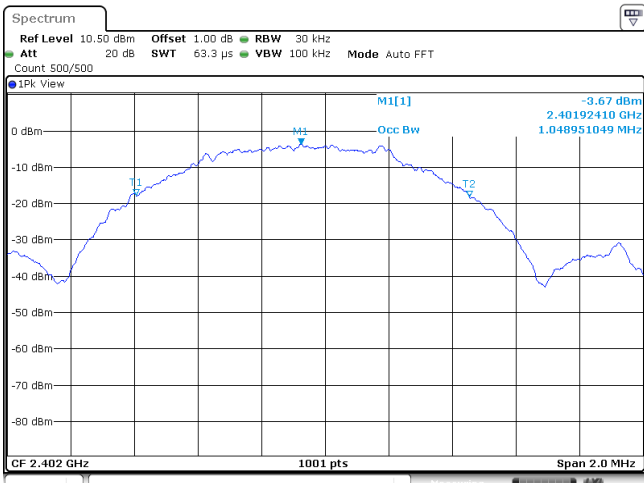
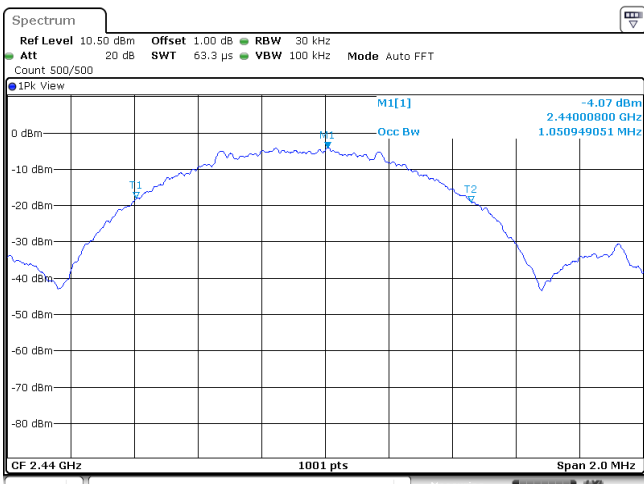
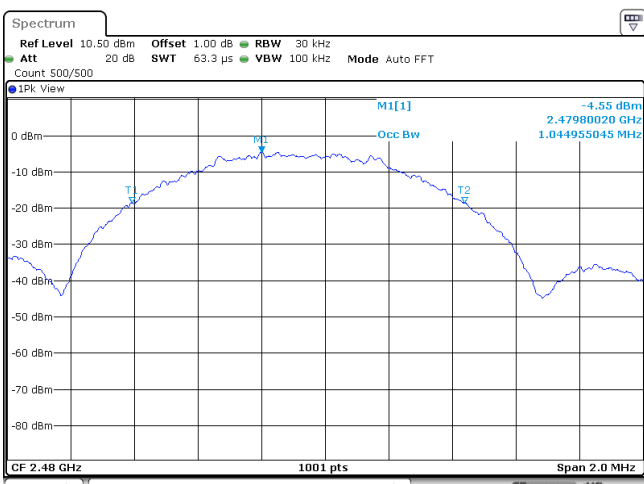


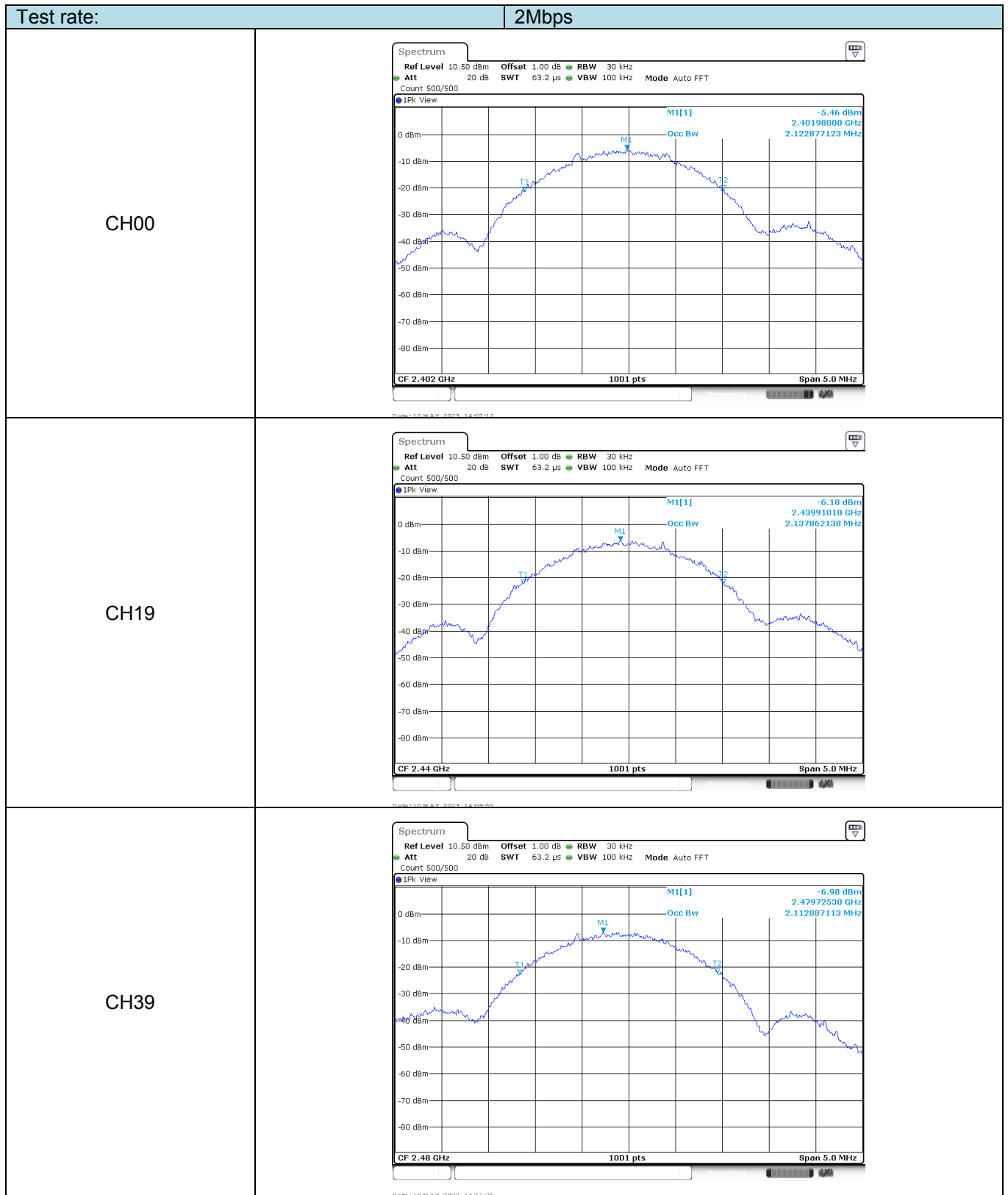
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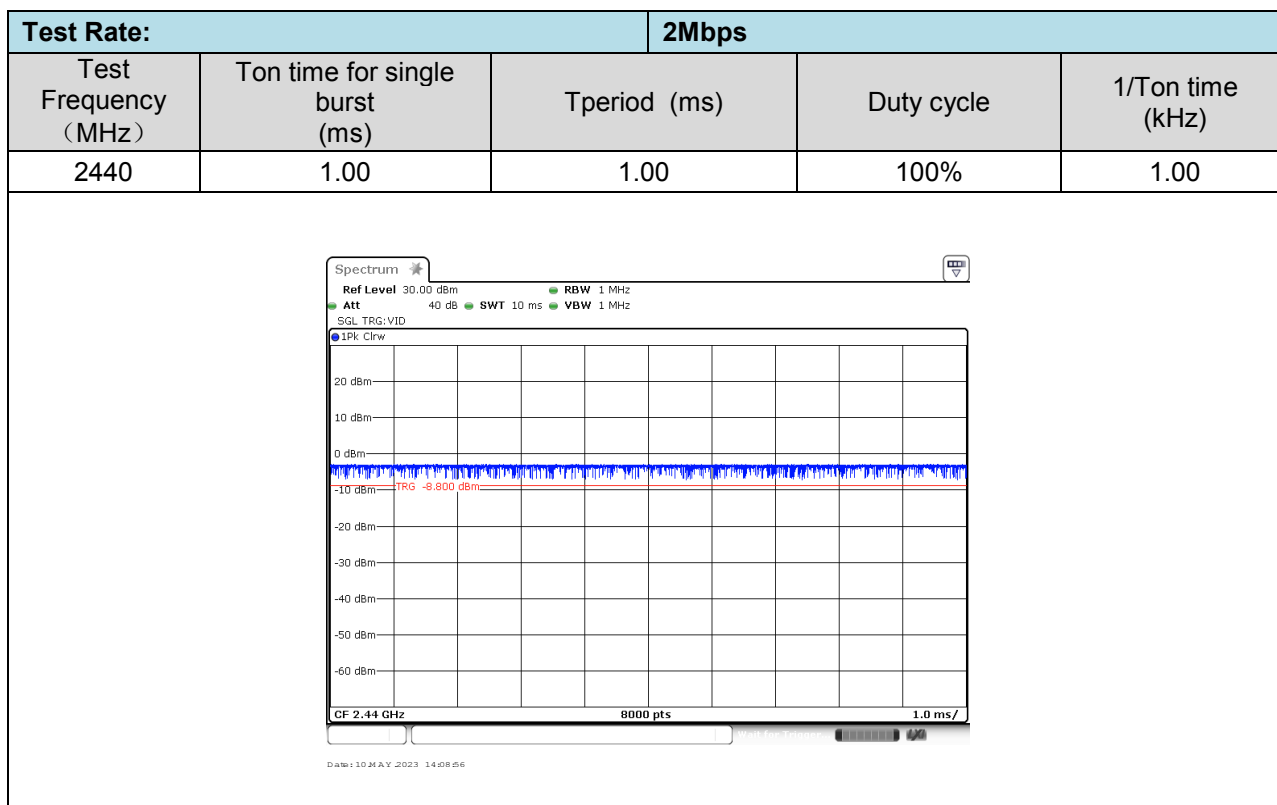
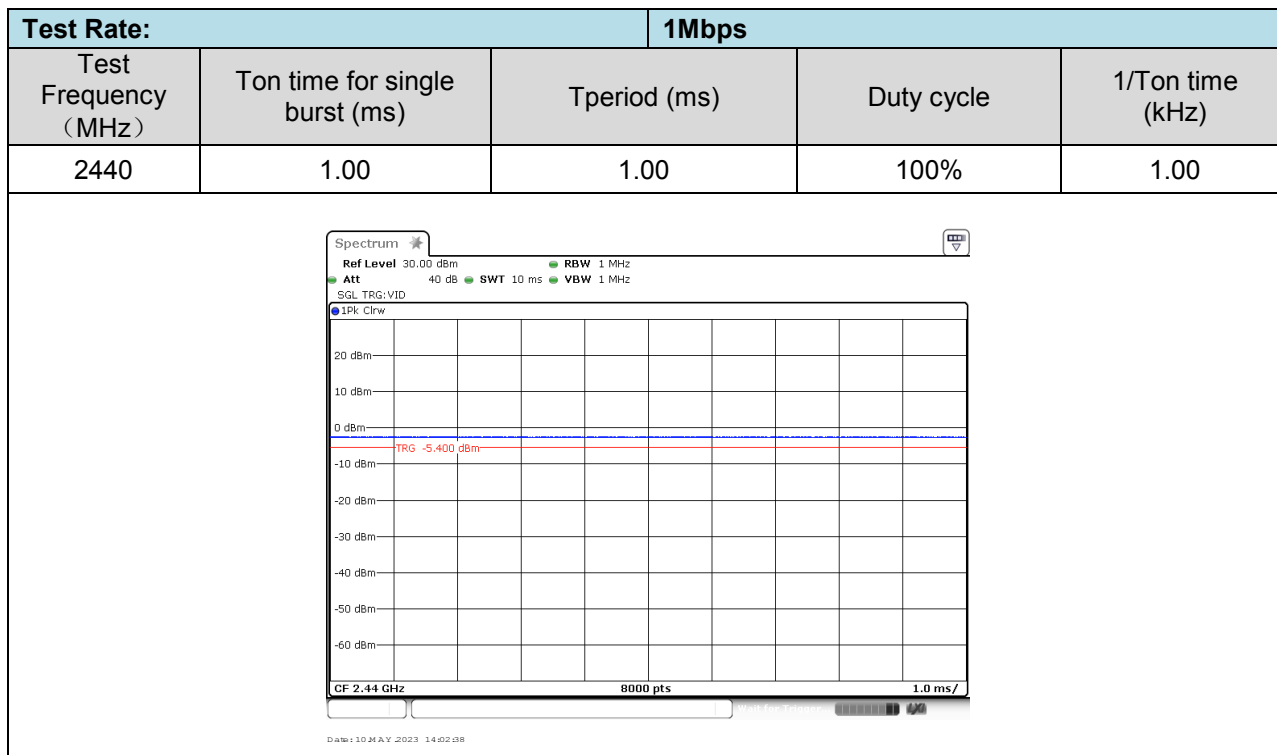
Appendix D: 99% Occupied Bandwidth

Test rate	Channel	99% Occupied Bandwidth(MHz)	Limit (kHz)	Result
1Mbps	00	1.05	-	Pass
	19	1.05		
	39	1.05		
2Mbps	00	2.12	-	Pass
	19	2.14		
	39	2.11		

Test rate:		1Mbps
CH00	 Debug: 10 MAY 2023 14:00:49	
CH19	 Debug: 10 MAY 2023 14:00:58	
CH39	 Debug: 10 MAY 2023 14:05:07	

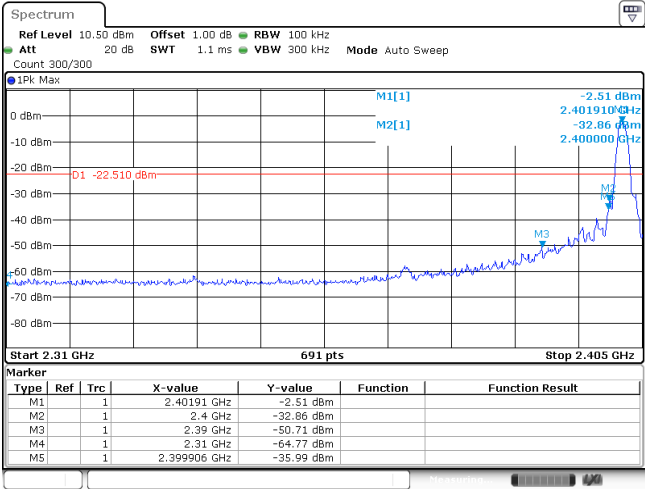
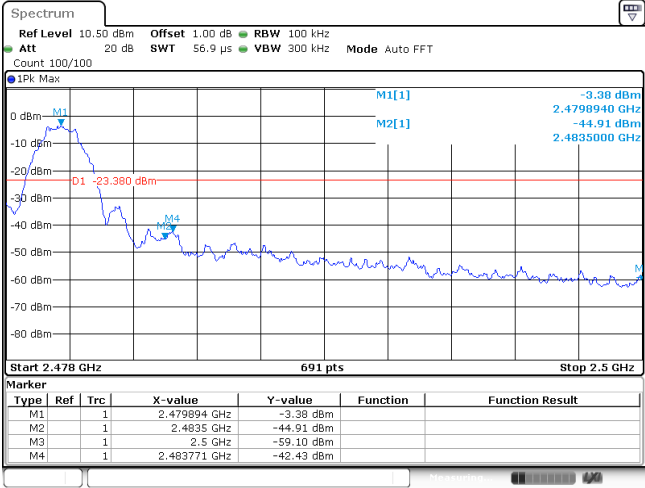


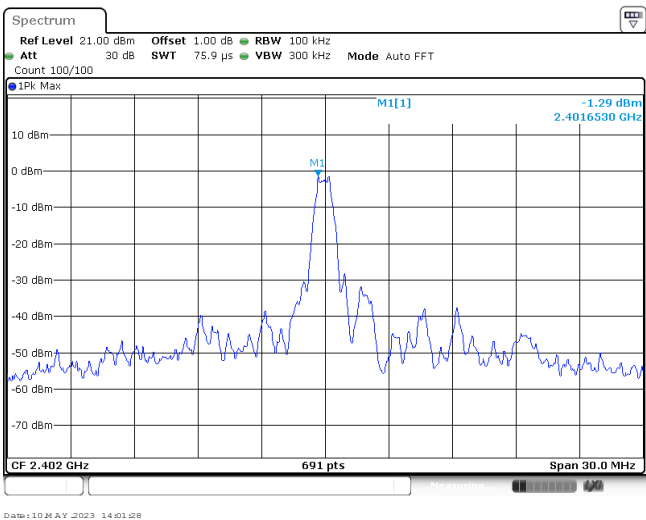
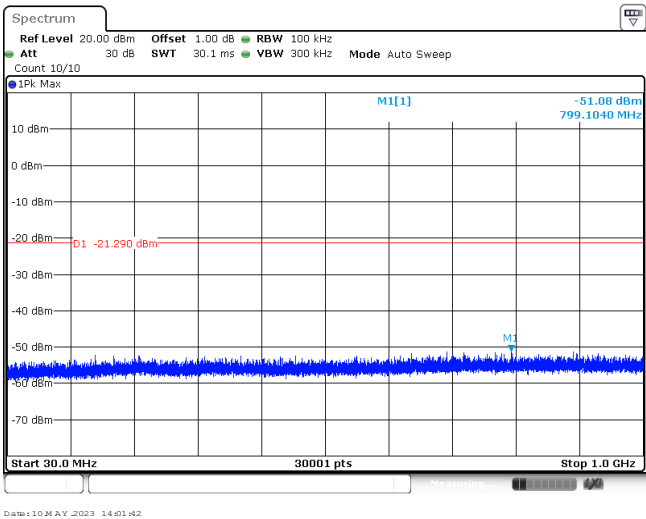
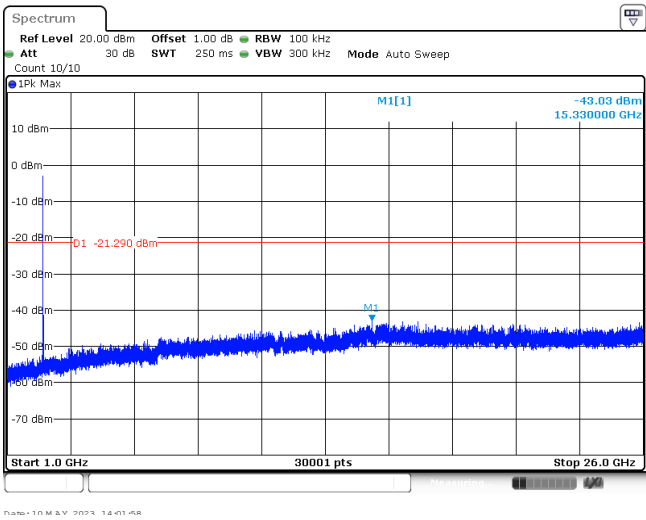
Appendix E: Duty cycle

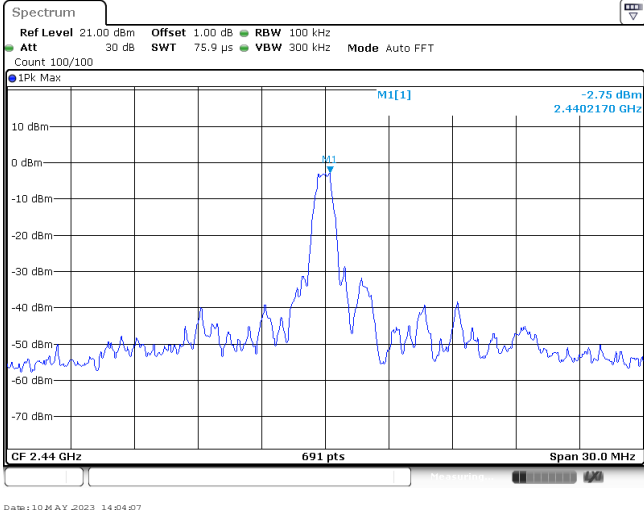
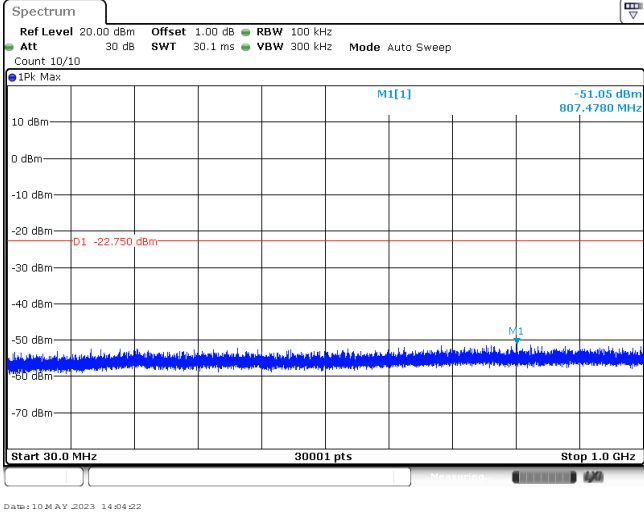
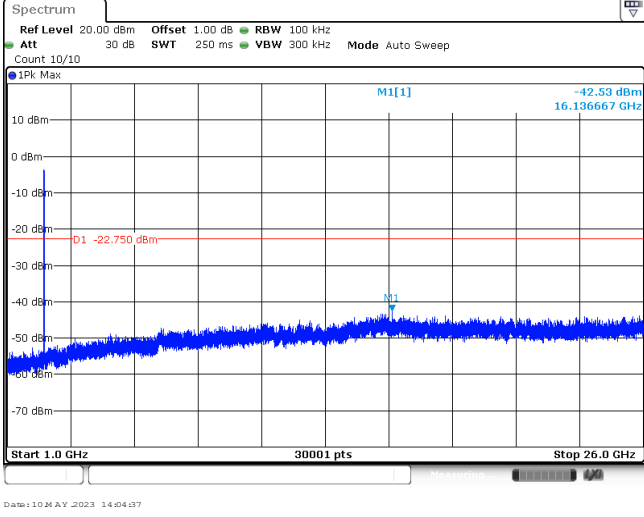


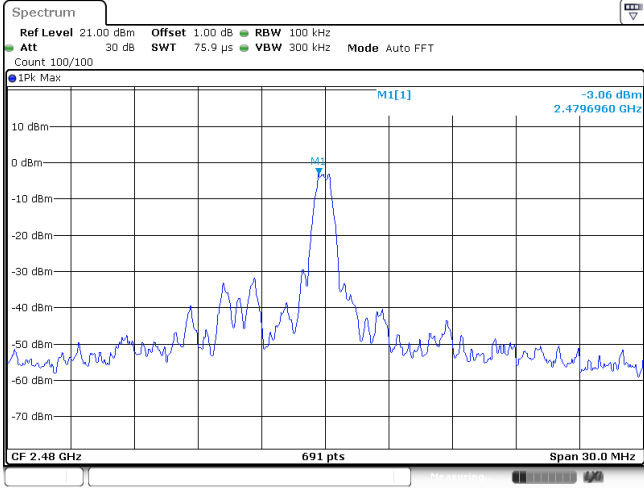
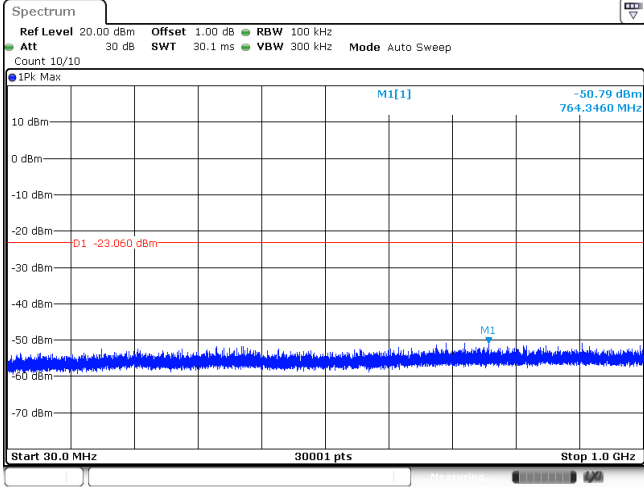
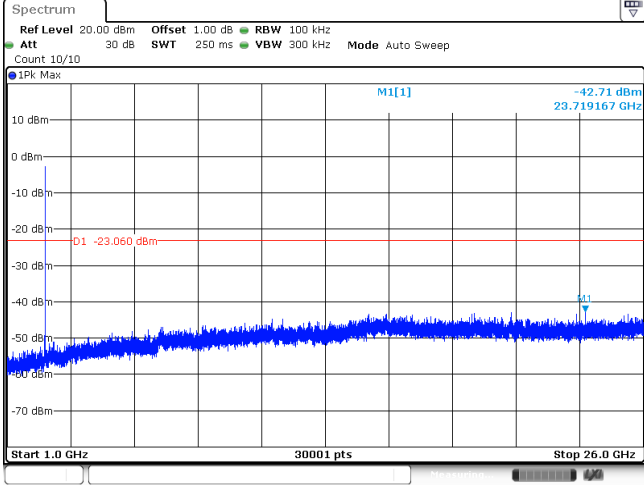
Appendix F: Band edge and Spurious Emissions (conducted)

Test Item:	Band edge	Test Rate:	1Mbps																																										
CH00	Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 100 kHz Att 20 dB SWT 1.1 ms VBW 300 kHz Mode Auto Sweep Count 300/300 1Pk Max 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -80 dBm M1[1] M2[1] M3 M4 M5 -1.24 dBm -42.87 dBm -53.03 dBm -63.65 dBm -36.92 dBm 2.402180 GHz 2.400000 GHz 2.39 GHz 2.31 GHz 2.399217 GHz Start 2.31 GHz 691 pts Stop 2.405 GHz Marker <table><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>2.40218 GHz</td><td>-1.24 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-42.87 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-53.03 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-63.65 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.399217 GHz</td><td>-36.92 dBm</td><td></td><td></td></tr></tbody></table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.40218 GHz	-1.24 dBm			M2	1		2.4 GHz	-42.87 dBm			M3	1		2.39 GHz	-53.03 dBm			M4	1		2.31 GHz	-63.65 dBm			M5	1		2.399217 GHz	-36.92 dBm		
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CH39	Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 100 kHz Att 20 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT Count 100/100 1Pk Max 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -80 dBm M1[1] M2[1] M3 M4 -1.79 dBm -48.29 dBm -56.92 dBm -42.31 dBm 2.479671 GHz 2.4835000 GHz 2.5 GHz 2.4856841 GHz Start 2.478 GHz 691 pts Stop 2.5 GHz Marker <table><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>2.479671 GHz</td><td>-1.79 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4835 GHz</td><td>-48.29 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-56.92 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.4856841 GHz</td><td>-42.31 dBm</td><td></td><td></td></tr></tbody></table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.479671 GHz	-1.79 dBm			M2	1		2.4835 GHz	-48.29 dBm			M3	1		2.5 GHz	-56.92 dBm			M4	1		2.4856841 GHz	-42.31 dBm									
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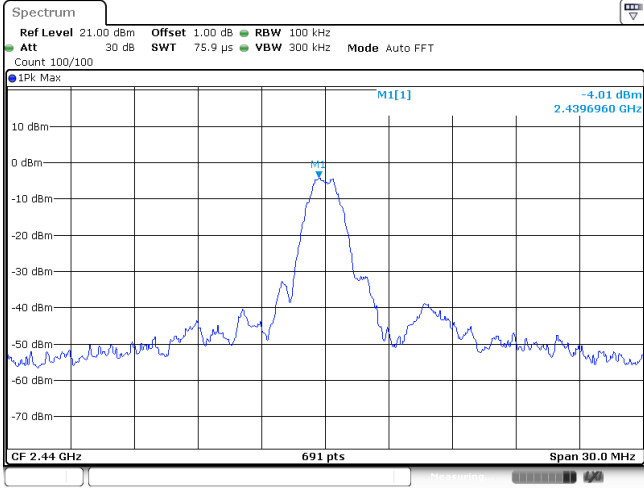
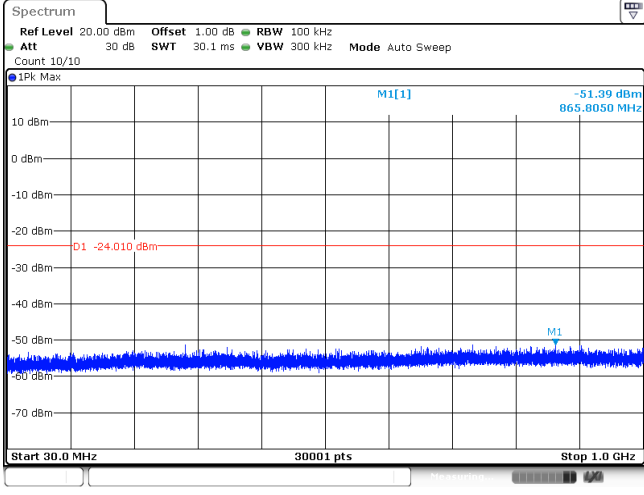
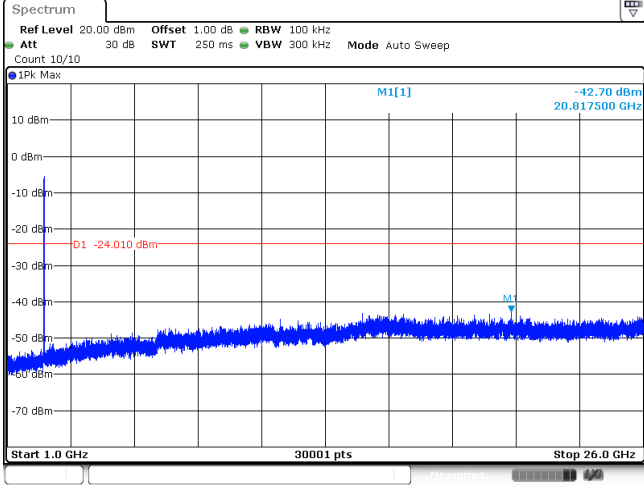
Test Item:	Band edge	Test Rate:	2Mbps
CH00			
CH39			

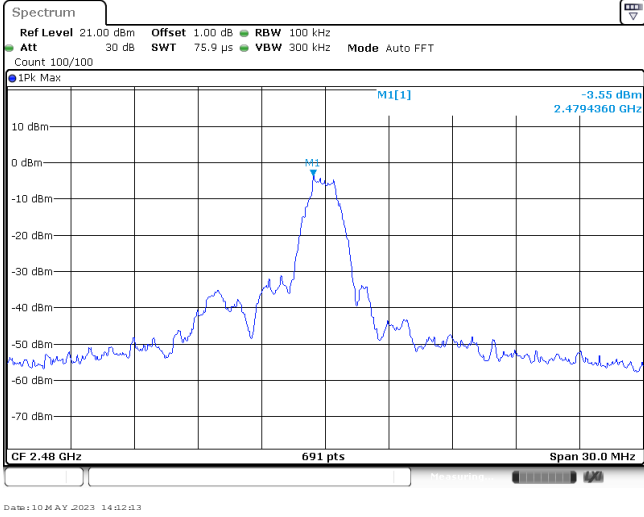
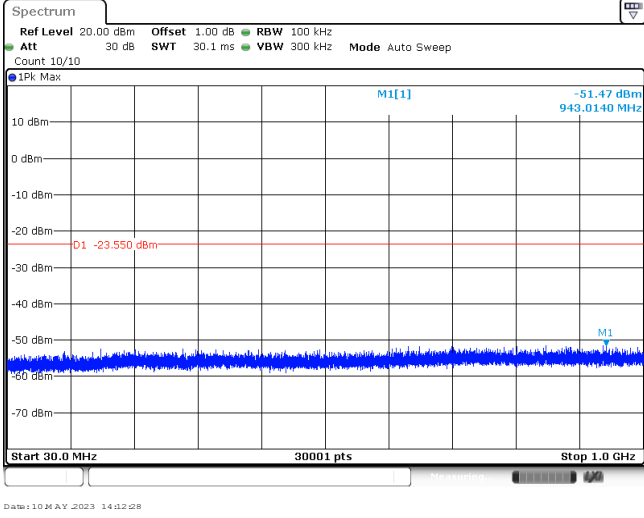
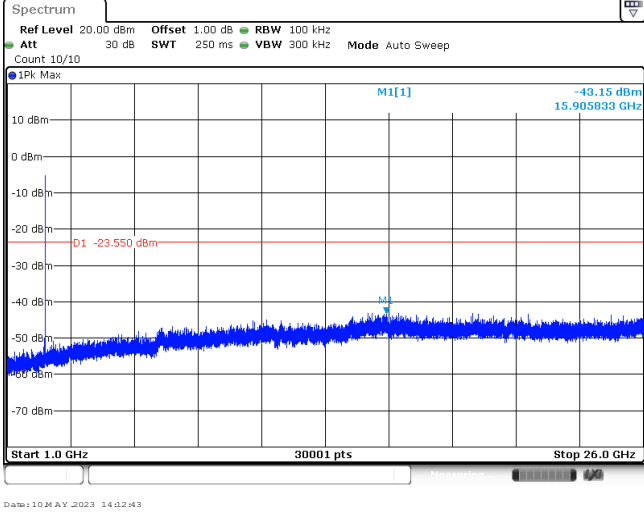
Test Item:	SE	Test Rate:	1Mbps
CH00 Reference level			
CH00 30MHz~1000MHz			
CH00 1GHz~26GHz			

CH19 Reference level	
CH19 30MHz~1000MHz	
CH19 1GHz~26GHz	

CH39 Reference level	 Spectrum Ref Level 21.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 75.9 μs VBW 300 kHz Mode Auto FFT Count 100/100 1Pk Max M1[1] -3.06 dBm 2.4796960 GHz CF 2.48 GHz 691 pts Span 30.0 MHz Date: 10 MAY 2023 14:06:04
CH39 30MHz~1000MHz	 Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 1Pk Max M1[1] -50.79 dBm 764.3460 MHz D1 -23.060 dBm Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 10 MAY 2023 14:06:19
CH39 1GHz~26GHz	 Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 1Pk Max M1[1] -42.71 dBm 23.719167 GHz D1 -23.060 dBm Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 10 MAY 2023 14:06:34

Test Item:	SE	Test Rate:	2Mbps
CH00 Reference level	Spectrum Ref Level 21.00 dBm Att 30 dB Count 100/100 Offset 1.00 dB SWT 75.9 μs RBW 100 kHz VBW 300 kHz Mode Auto FFT 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1 M1[1] -2.16 dBm 2.4023910 GHz CF 2.402 GHz 691 pts Span 30.0 MHz Date: 10 MAY 2023 14:07:50		
CH00 30MHz~1000MHz	Spectrum Ref Level 20.00 dBm Att 30 dB Count 10/10 Offset 1.00 dB SWT 30.1 ms RBW 100 kHz VBW 300 kHz Mode Auto Sweep 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1 M1[1] -51.31 dBm 953.8460 MHz D1 -22.160 dBm Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 10 MAY 2023 14:08:04		
CH00 1GHz~26GHz	Spectrum Ref Level 20.00 dBm Att 30 dB Count 10/10 Offset 1.00 dB SWT 250 ms RBW 100 kHz VBW 300 kHz Mode Auto Sweep 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1 M1[1] -43.23 dBm 16.299167 GHz D1 -22.160 dBm Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 10 MAY 2023 14:08:20		

CH19 Reference level	 Spectrum Ref Level 21.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 75.9 μs VBW 300 kHz Mode Auto FFT Count 100/100 1Pk Max M1[1] -4.01 dBm 2.4396960 GHz CF 2.44 GHz 691 pts Span 30.0 MHz Date: 10 MAY 2023 14:10:22
CH19 30MHz~1000MHz	 Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 1Pk Max M1[1] -51.39 dBm 865.8050 MHz Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 10 MAY 2023 14:10:37
CH19 1GHz~26GHz	 Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 1Pk Max M1[1] -42.70 dBm 20.817500 GHz Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 10 MAY 2023 14:10:53

CH39 Reference level	
CH39 30MHz~1000MHz	
CH39 1GHz~26GHz	

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