

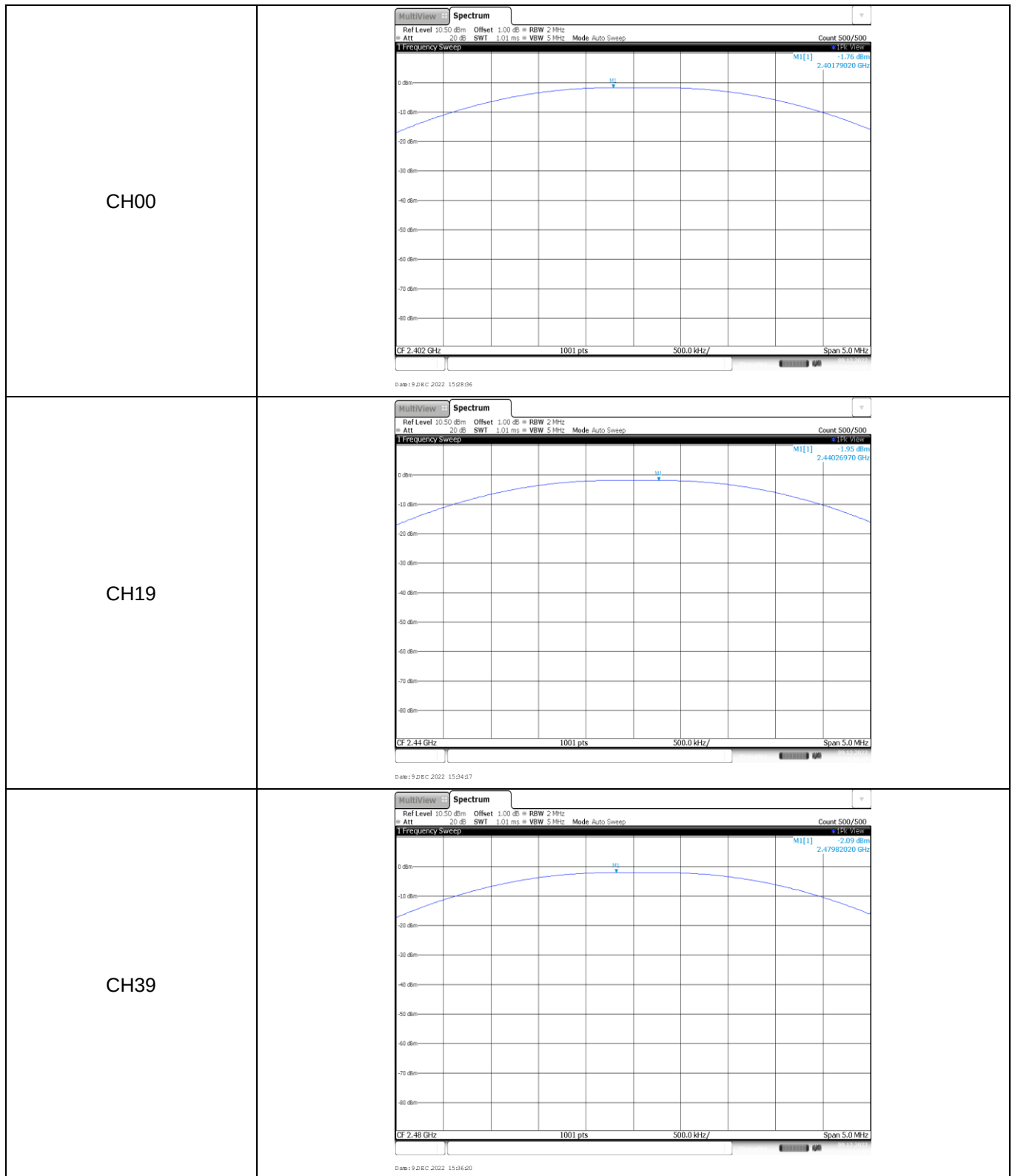
APPENDIX REPORT

Project No.	SHT2211046301EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT22110463002	Model No.	AOJ-33A
Start test date	2022-12-07	Finish date	2022-12-09
Temperature	26.0℃	Humidity	36%
Test Engineer	Xiaoxiao Li	Auditor	Xiaodong Zhu

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

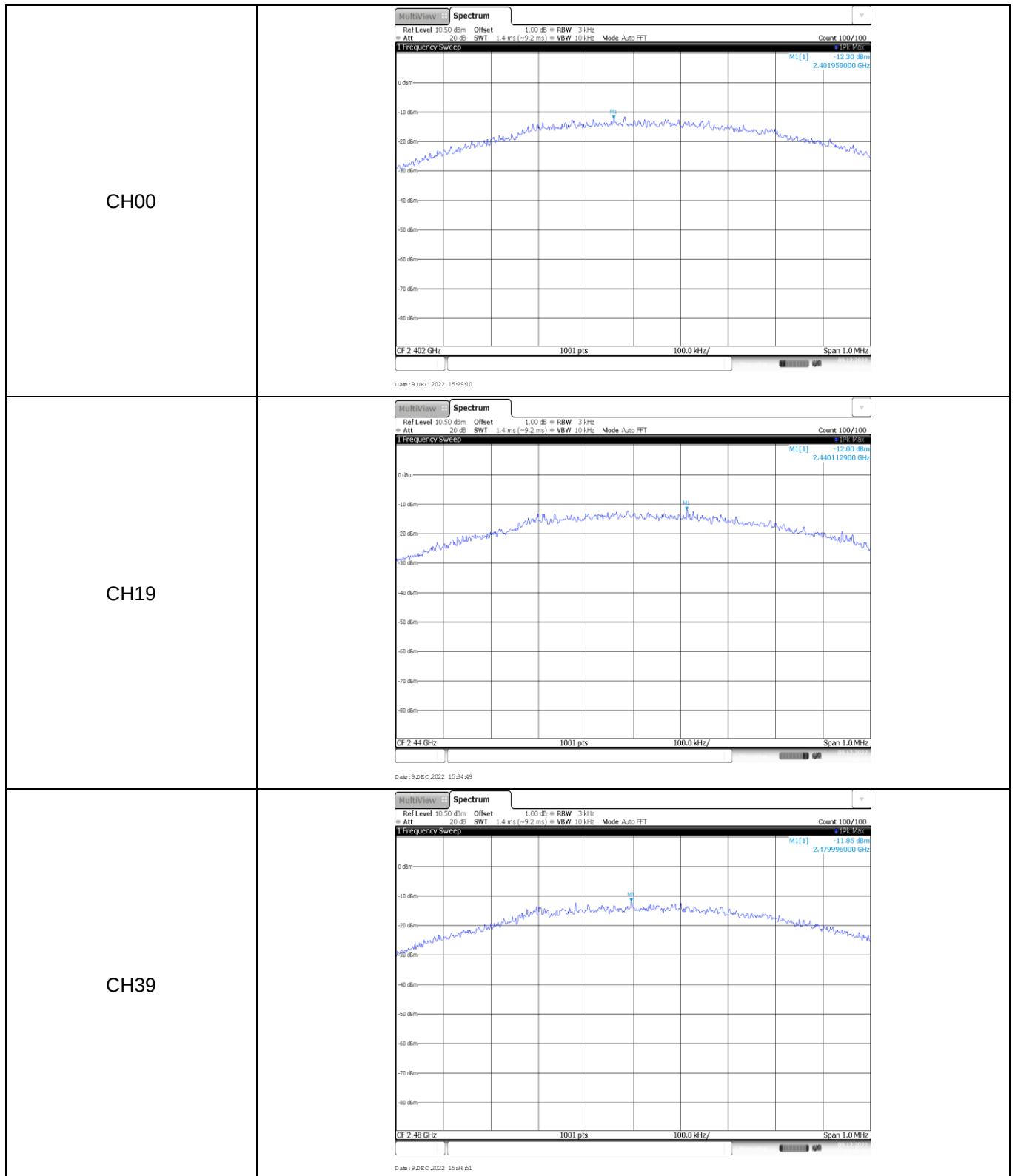
Appendix A: Peak Output Power

Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
BT-BLE	00	-1.76	-1.77	≤ 30.00	Pass
	19	-1.95	-1.97		
	39	-2.09	-2.10		



Appendix B: Power Spectral Density

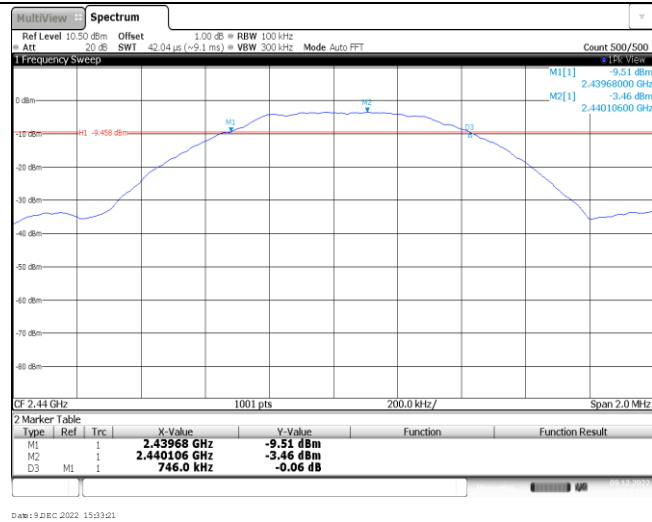
Type	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
BT-BLE	00	-12.30	≤8.00	Pass
	19	-12.00		
	39	-11.85		



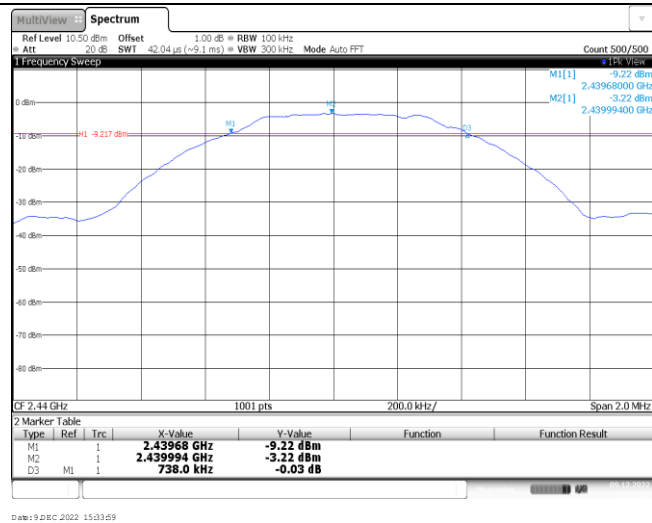
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
BT-BLE	00	746.00	≥500	Pass
	19	738.00		
	39	756.00		

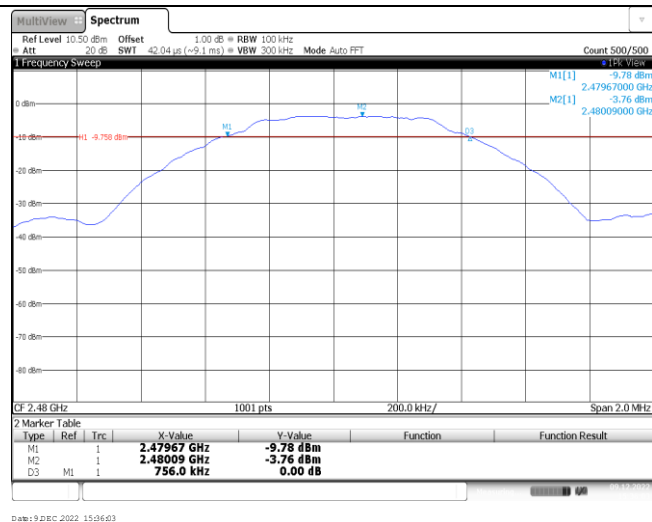
CH00



CH19



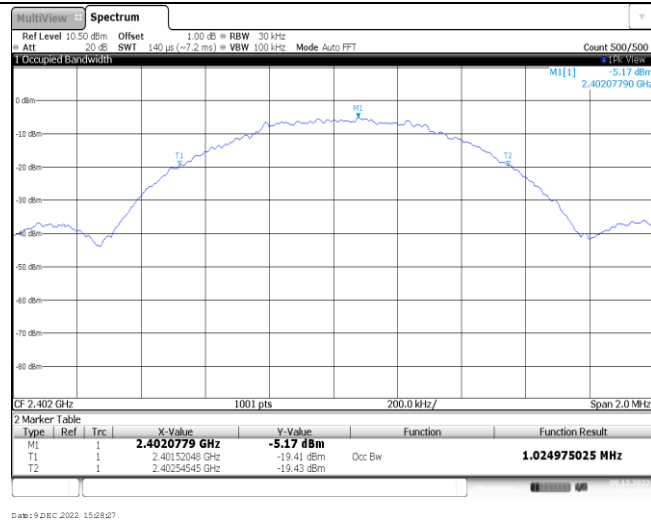
CH39



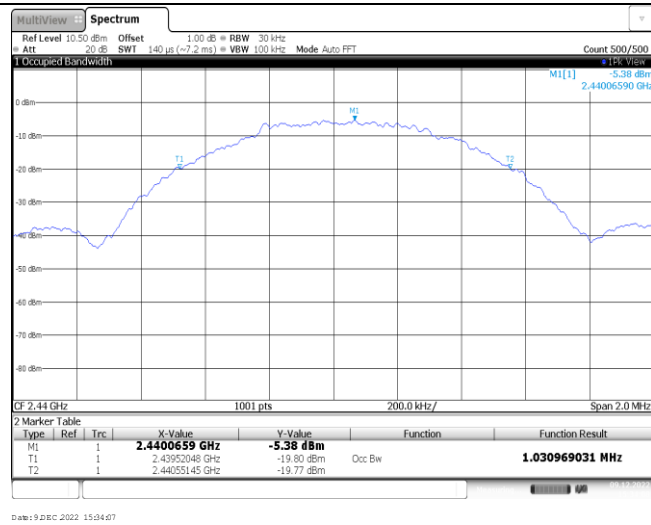
Appendix D: 99% Occupied Bandwidth

Type	Channel	99% Occupied Bandwidth(MHz)	Limit (kHz)	Result
BT-BLE	00	1.02	-	Pass
	19	1.03		
	39	1.03		

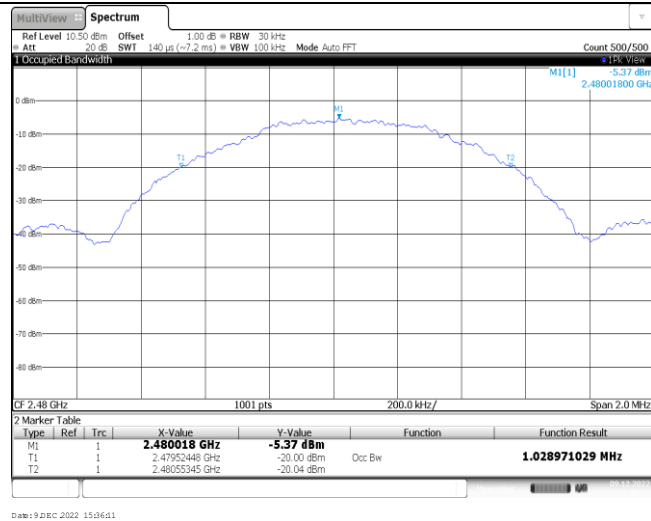
CH00



CH19

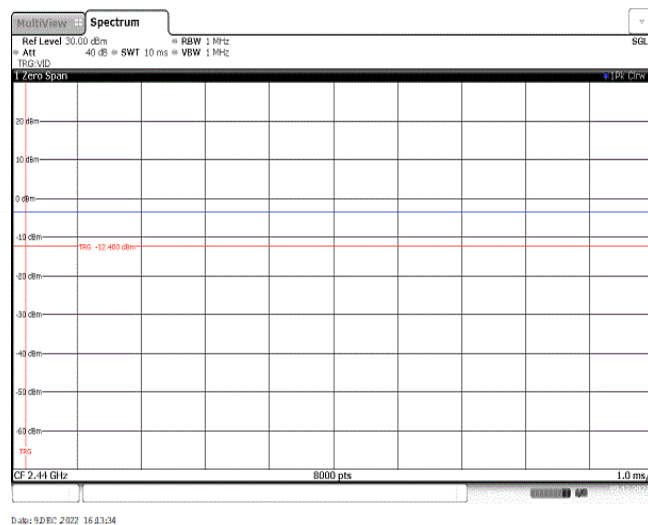


CH39



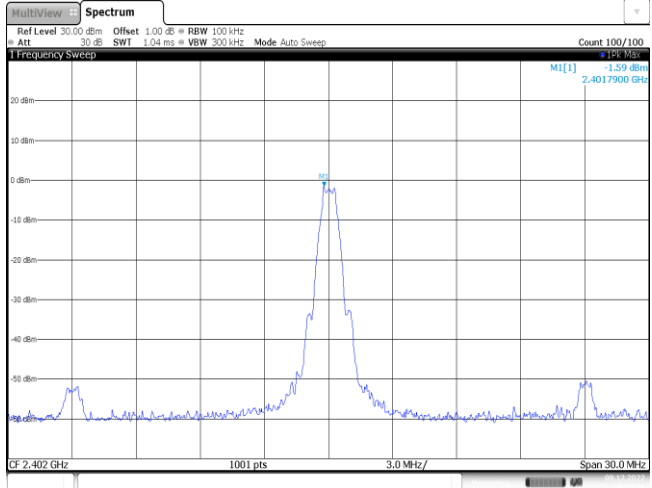
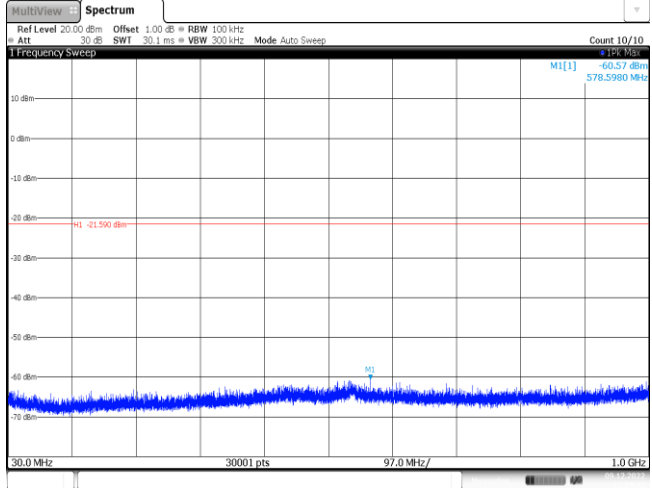
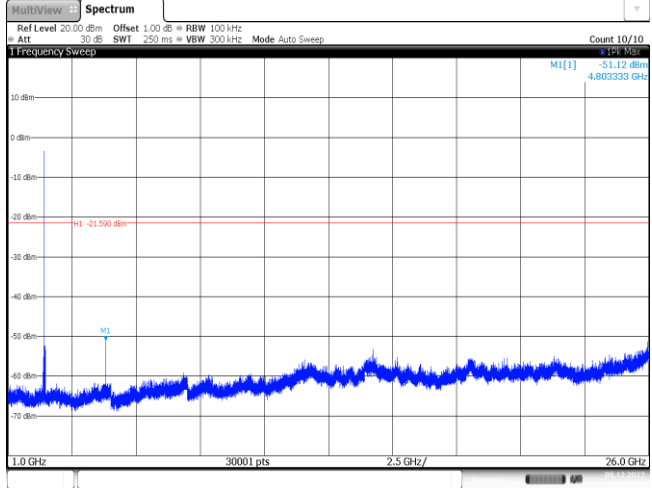
Appendix E: Duty cycle

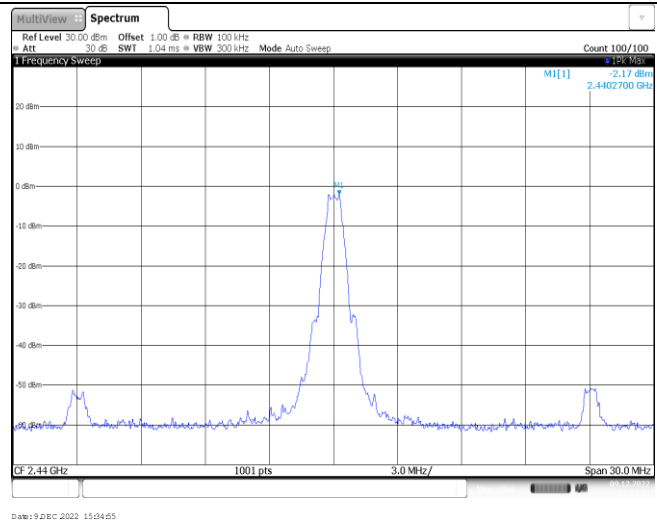
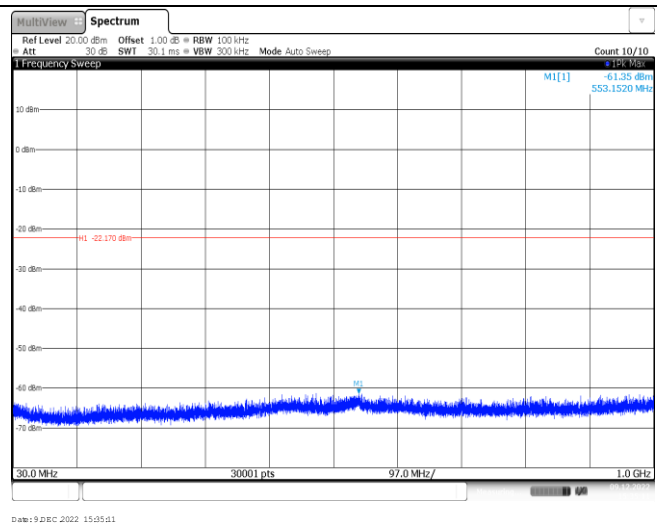
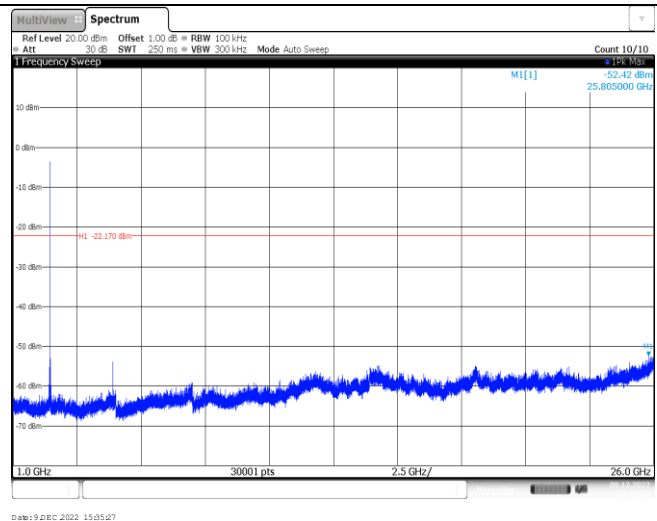
Test Frequency (MHz)	T _{on} time for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on} time (kHz)
2440	1.00	1.00	100%	1

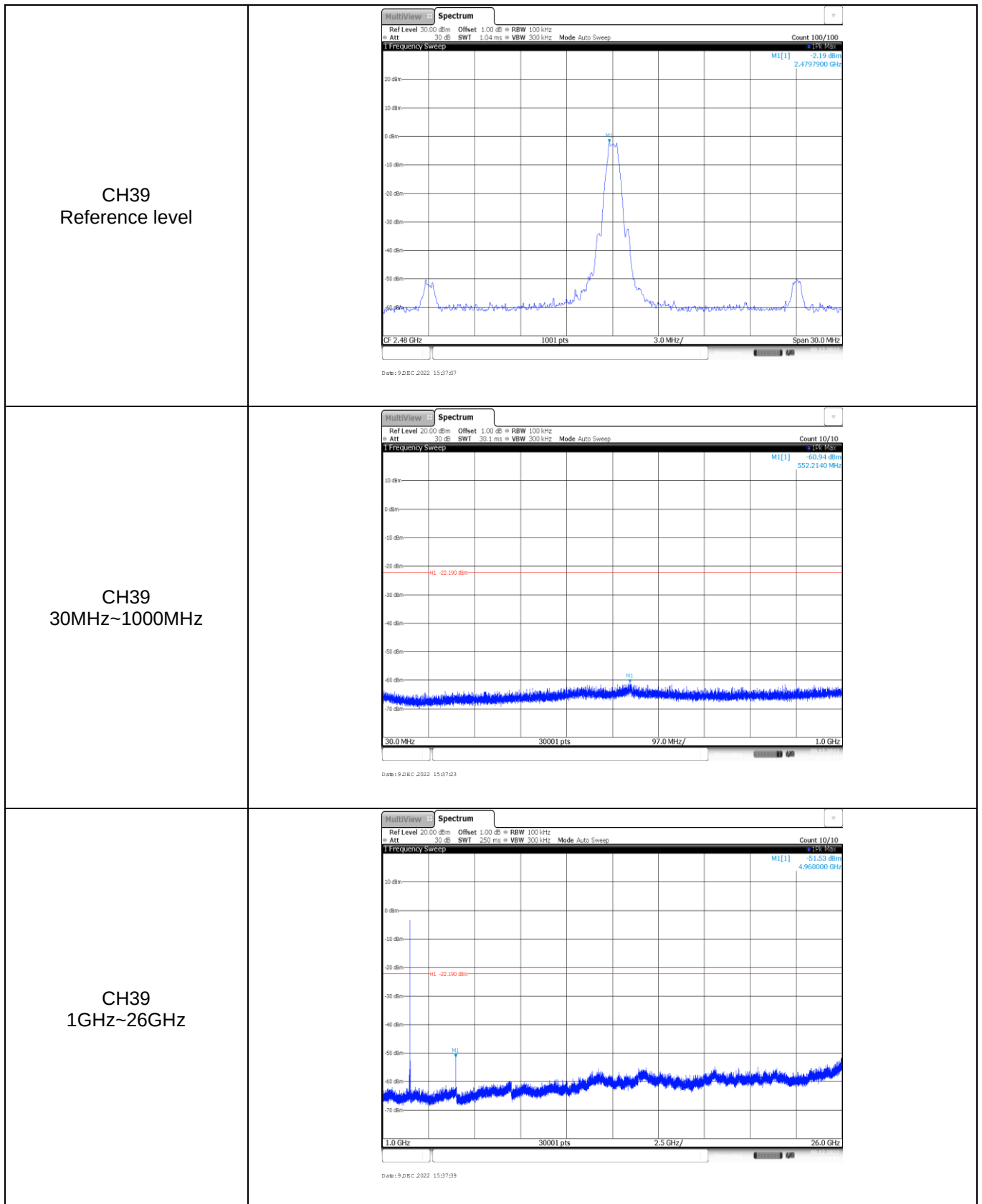


Appendix F: Band edge and Spurious Emissions (conducted)

Test Item:	Band edge																																																																															
CH00	MultiView Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 100 kHz Att 20 dB SWI 1.05 ms VBW 300 kHz Mode Auto Sweep Count 300/300 1 Frequency Sweep 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 60 dBm 70 dBm 80 dBm 2.31 GHz 1001 pts 9.5 MHz/ 2.405 GHz M1[1] -2.00 dBm 2.4022950 GHz M2[1] -51.69 dBm 2.4000000 GHz <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>2.402295 GHz</td><td>-2.00 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-51.69 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-54.77 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-74.21 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.399965 GHz</td><td>-51.32 dBm</td><td></td><td></td></tr></table> Date: 9 DEC 2022 15:29:20 <tr><td>CH39</td><td> MultiView Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 100 kHz Att 20 dB SWI 1.02 ms VBW 300 kHz Mode Auto Sweep Count 100/100 1 Frequency Sweep 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 60 dBm 70 dBm 80 dBm 2.478 GHz 1001 pts 2.2 MHz/ 2.5 GHz M1[1] -2.33 dBm 2.4797910 GHz M2[1] -65.95 dBm 2.4835000 GHz <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>2.479791 GHz</td><td>-2.33 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4835 GHz</td><td>-65.95 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-72.60 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.492036 GHz</td><td>-51.36 dBm</td><td></td><td></td></tr></table> Date: 9 DEC 2022 15:37:50 </td></tr>	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.402295 GHz	-2.00 dBm			M2	1		2.4 GHz	-51.69 dBm			M3	1		2.39 GHz	-54.77 dBm			M4	1		2.31 GHz	-74.21 dBm			M5	1		2.399965 GHz	-51.32 dBm			CH39	MultiView Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 100 kHz Att 20 dB SWI 1.02 ms VBW 300 kHz Mode Auto Sweep Count 100/100 1 Frequency Sweep 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 60 dBm 70 dBm 80 dBm 2.478 GHz 1001 pts 2.2 MHz/ 2.5 GHz M1[1] -2.33 dBm 2.4797910 GHz M2[1] -65.95 dBm 2.4835000 GHz <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>2.479791 GHz</td><td>-2.33 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4835 GHz</td><td>-65.95 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-72.60 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.492036 GHz</td><td>-51.36 dBm</td><td></td><td></td></tr></table> Date: 9 DEC 2022 15:37:50	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.479791 GHz	-2.33 dBm			M2	1		2.4835 GHz	-65.95 dBm			M3	1		2.5 GHz	-72.60 dBm			M4	1		2.492036 GHz	-51.36 dBm		
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Test Item:	SE
CH00 Reference level	 Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWI 1.04 ms VBW 300 kHz Mode Auto Sweep Count 100/100 MI[1] 1.59 dBm 2.4017900 GHz 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm 2.402 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 9 DEC 2022 15:29:29
CH00 30MHz~1000MHz	 Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWI 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 MI[1] -60.57 dBm 578.5980 MHz 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 9 DEC 2022 15:29:45
CH00 1GHz~26GHz	 Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWI 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 MI[1] -51.12 dBm 4.805533 GHz 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 9 DEC 2022 15:30:01

CH19
Reference levelCH19
30MHz~1000MHzCH19
1GHz~26GHz



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