

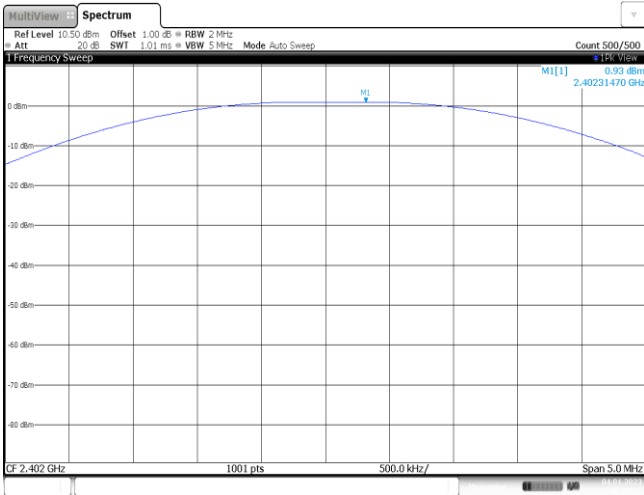
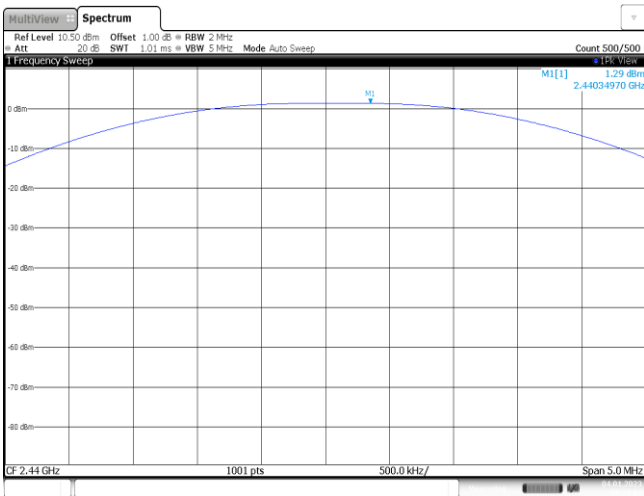
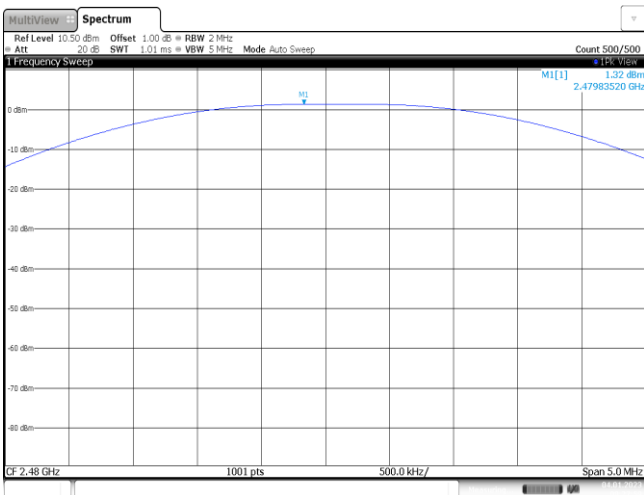
APPENDIX REPORT

Project No.	SHT2212034801EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT22120348001	Model No.	HYD-23
Start test date	2023-01-04	Finish date	2023-01-04
Temperature	22.5℃	Humidity	44%
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

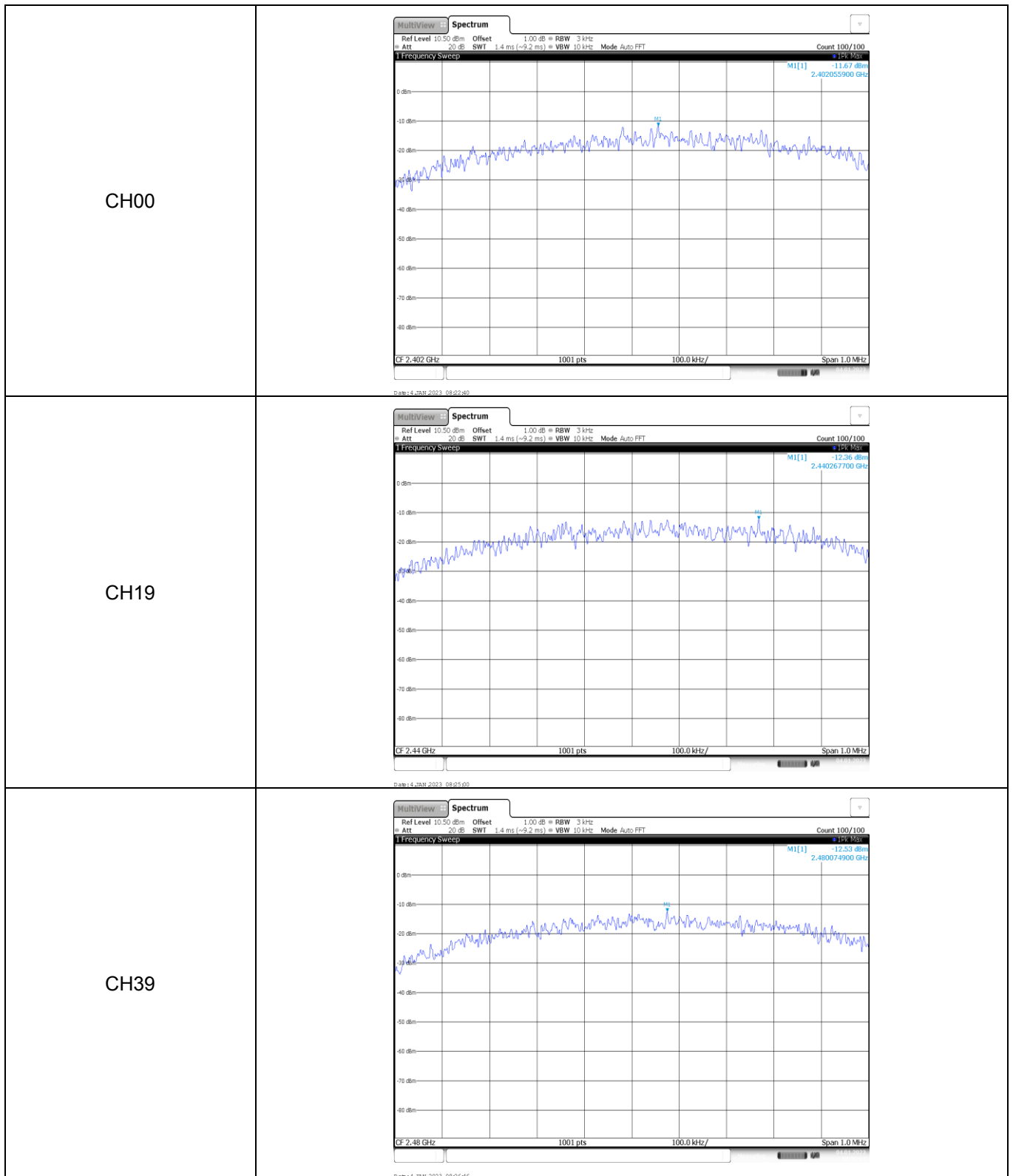
Appendix A: Peak Output Power

Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
BT-BLE	00	0.93	0.91	≤ 30.00	Pass
	19	1.29	1.26		
	39	1.32	1.30		

CH00	 Ref Level 10.50 dBm Offset 1.00 dB RBW 2 MHz Att 20 dB SWI 1.01 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1 Frequency Sweep M1[1] 0.93 dBm 2.4021470 GHz CF 2.402 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 14 JUN 2023 08:22:25
CH19	 Ref Level 10.50 dBm Offset 1.00 dB RBW 2 MHz Att 20 dB SWI 1.01 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1 Frequency Sweep M1[1] 1.29 dBm 2.44034970 GHz CF 2.44 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 14 JUN 2023 08:24:05
CH39	 Ref Level 10.50 dBm Offset 1.00 dB RBW 2 MHz Att 20 dB SWI 1.01 ms VBW 5 MHz Mode Auto Sweep Count 500/500 1 Frequency Sweep M1[1] 1.32 dBm 2.47983520 GHz CF 2.48 GHz 1001 pts 500.0 kHz/ Span 5.0 MHz Date: 14 JUN 2023 08:27:59

Appendix B: Power Spectral Density

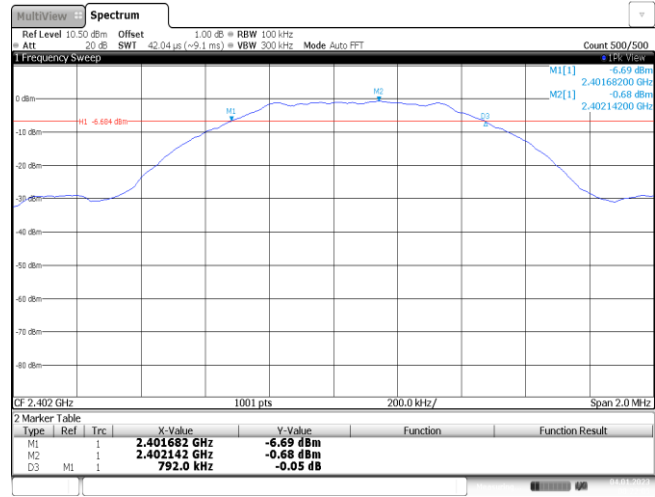
Type	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
BT-BLE	00	-11.67	≤8.00	Pass
	19	-12.36		
	39	-12.53		



Appendix C: 6dB bandwidth

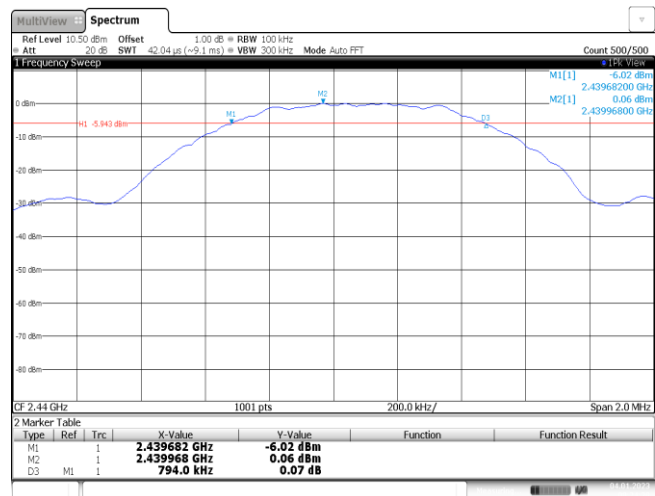
Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
BT-BLE	00	792.00	≥500	Pass
	19	794.00		
	39	790.00		

CH00



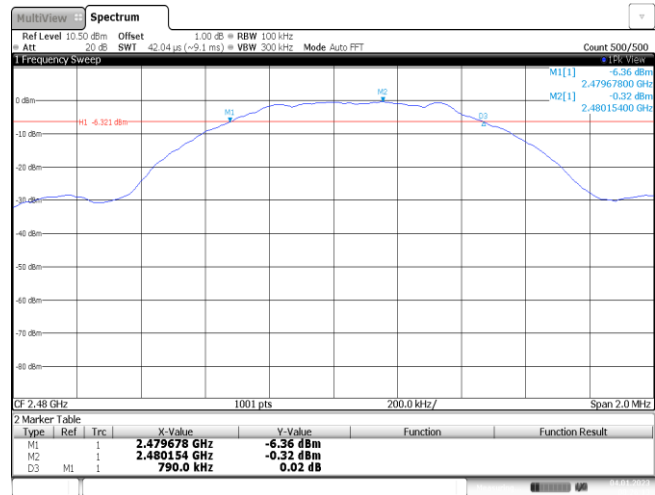
Date: 14 JAN 2023 08:22:05

CH19



Date: 14 JAN 2023 08:24:28

CH39

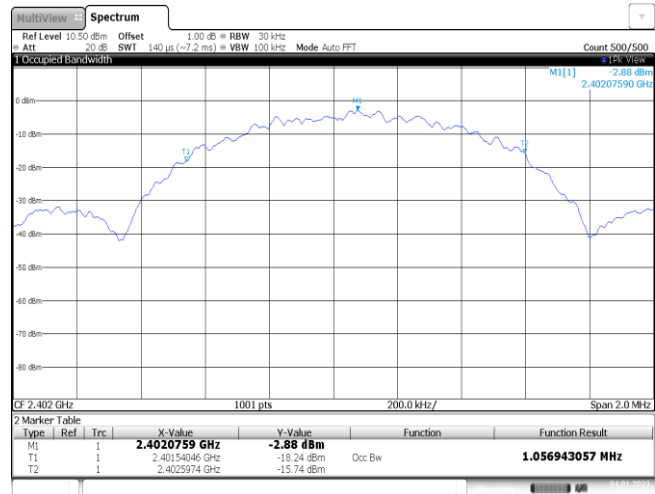


Date: 14 JAN 2023 08:26:13

Appendix D: 99% Occupied Bandwidth

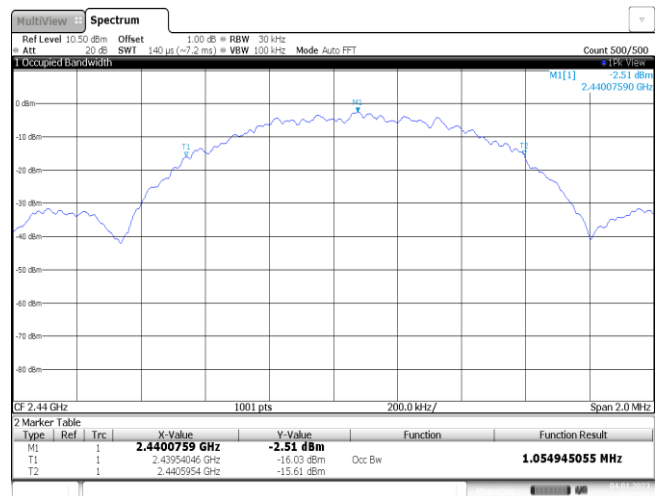
Type	Channel	99% Occupied Bandwidth(MHz)	Limit (kHz)	Result
BT-BLE	00	1.06	-	Pass
	19	1.06		
	39	1.07		

CH00



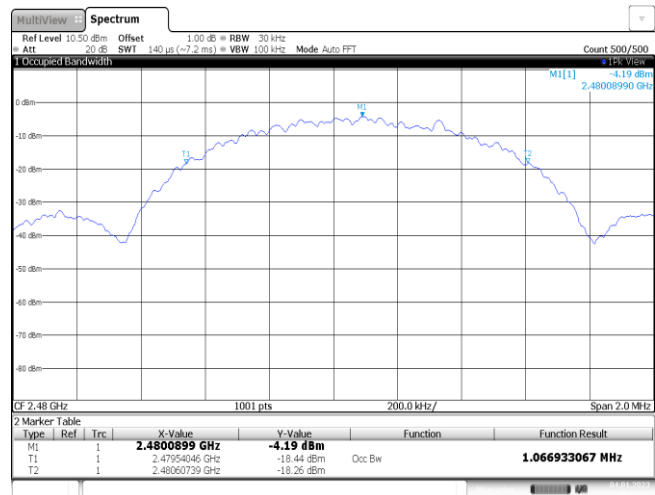
Date: 14 JAN 2023 08:22:16

CH19



Date: 14 JAN 2023 08:24:06

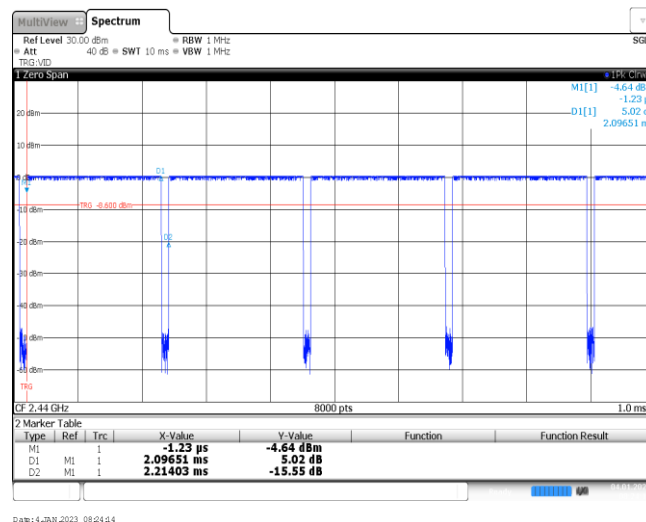
CH39



Date: 14 JAN 2023 08:26:22

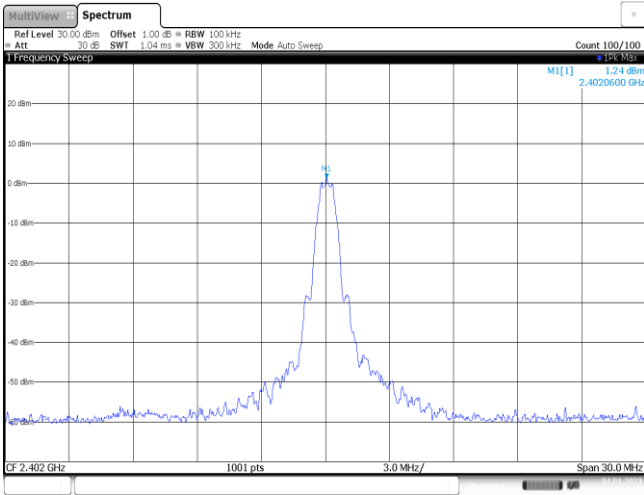
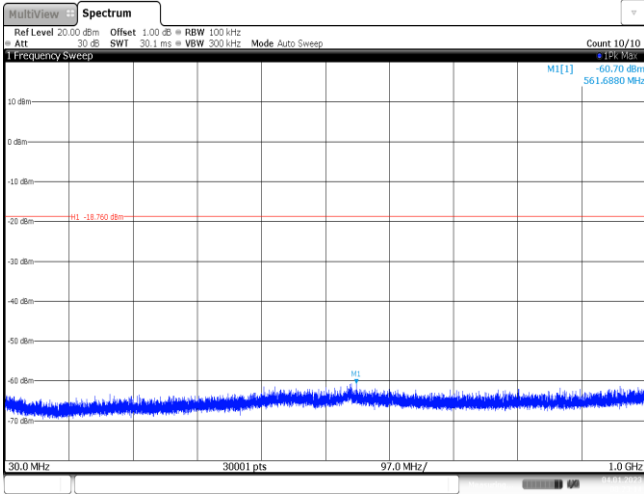
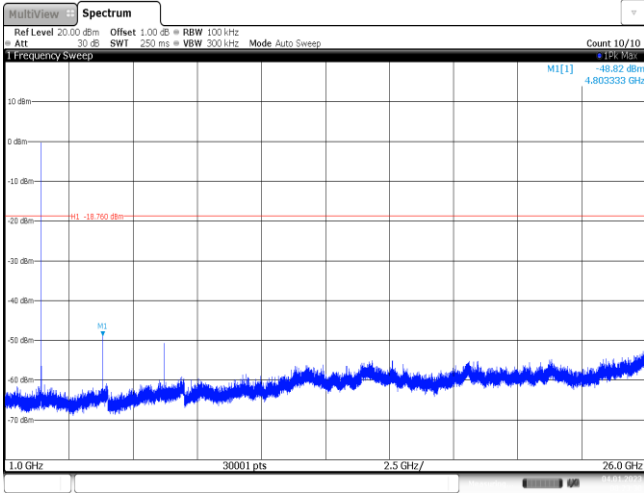
Appendix E: Duty cycle

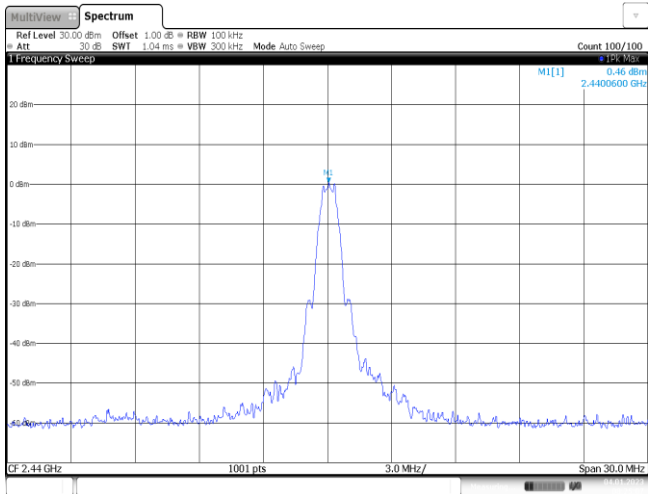
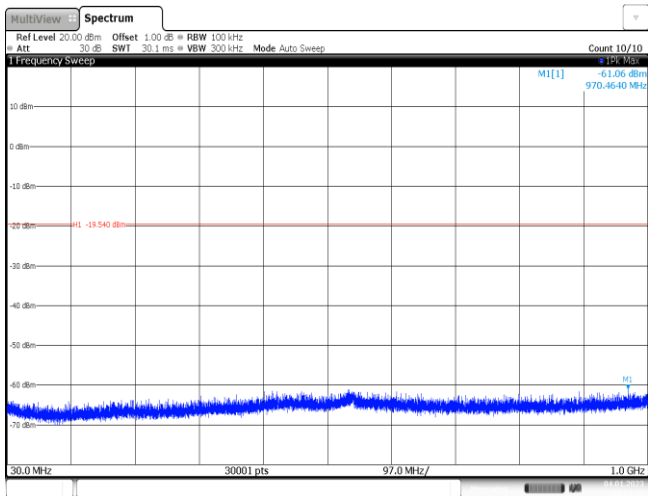
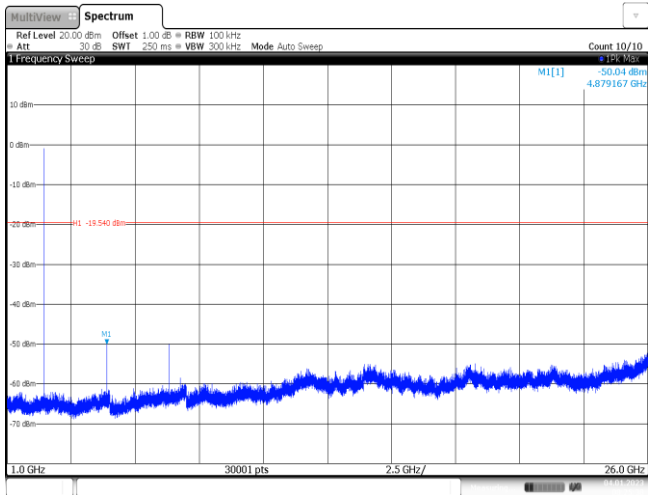
Test Frequency (MHz)	T _{on} time for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on} time (kHz)
2440	2.10	2.21	95.0%	0.48

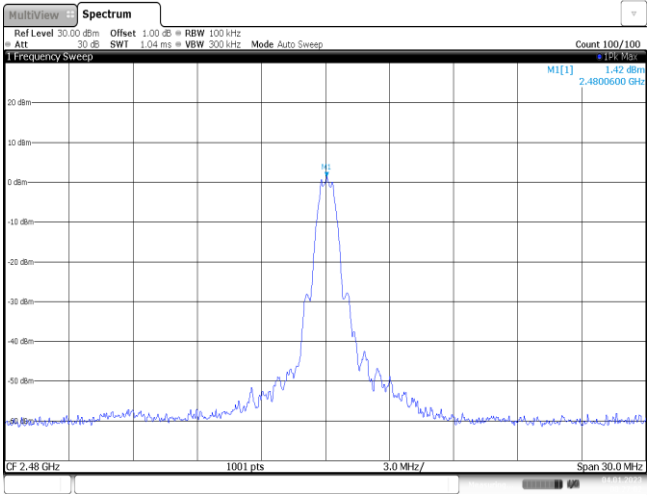
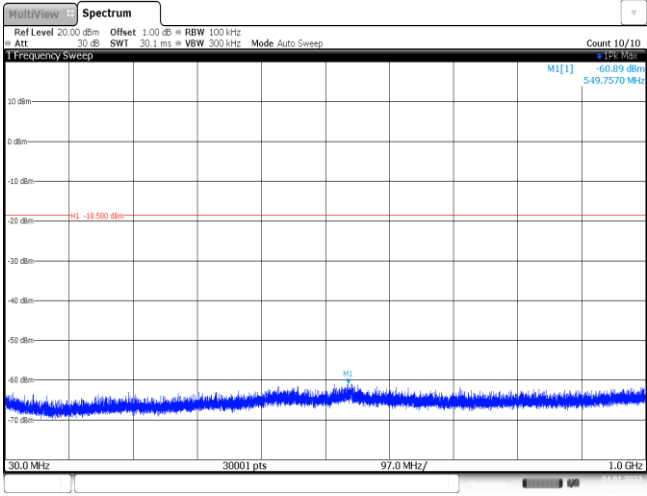
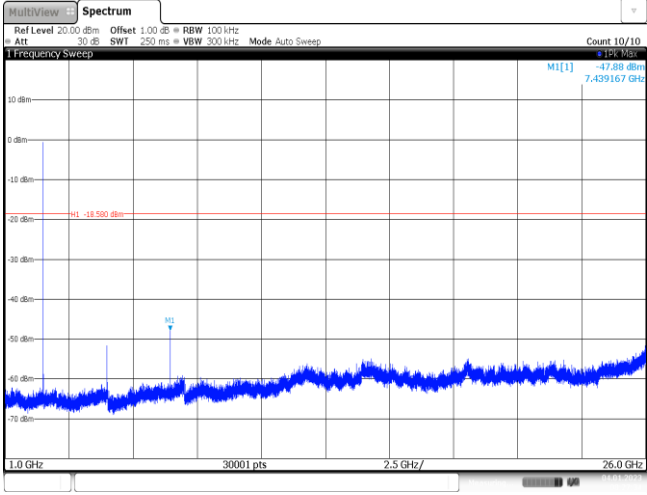


Appendix F: Band edge and Spurious Emissions (conducted)

Test Item:	Band edge																																										
CH00	MultiView Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 100 kHz Att 20 dB SWT 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] 0.92 dBm 2.4020100 GHz M2[1] -48.40 dBm 2.4000000 GHz H1 -15.00 dBm 2 Marker Table <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>2.40201 GHz</td><td>0.92 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-48.40 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-70.20 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-73.95 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.399775 GHz</td><td>-48.92 dBm</td><td></td><td></td></tr></table> Date: 4 Oct 2023 08:22:51	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.40201 GHz	0.92 dBm			M2	1		2.4 GHz	-48.40 dBm			M3	1		2.39 GHz	-70.20 dBm			M4	1		2.31 GHz	-73.95 dBm			M5	1		2.399775 GHz	-48.92 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																					
M1	1		2.40201 GHz	0.92 dBm																																							
M2	1		2.4 GHz	-48.40 dBm																																							
M3	1		2.39 GHz	-70.20 dBm																																							
M4	1		2.31 GHz	-73.95 dBm																																							
M5	1		2.399775 GHz	-48.92 dBm																																							
CH39	MultiView Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 100 kHz Att 20 dB SWT 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] -0.13 dBm 2.4800770 GHz M2[1] -53.56 dBm 2.4835000 GHz H1 -35.130 dBm 2 Marker Table <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>2.480077 GHz</td><td>-0.13 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4835 GHz</td><td>-53.56 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-73.20 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.483522 GHz</td><td>-53.64 dBm</td><td></td><td></td></tr></table> Date: 4 Oct 2023 08:26:05	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.480077 GHz	-0.13 dBm			M2	1		2.4835 GHz	-53.56 dBm			M3	1		2.5 GHz	-73.20 dBm			M4	1		2.483522 GHz	-53.64 dBm									
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																					
M1	1		2.480077 GHz	-0.13 dBm																																							
M2	1		2.4835 GHz	-53.56 dBm																																							
M3	1		2.5 GHz	-73.20 dBm																																							
M4	1		2.483522 GHz	-53.64 dBm																																							

Test Item:	SE
CH00 Reference level	 Ref Level 30.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWI 1.04 ms VBW 300 kHz Mode Auto Sweep Count 100/100 M1[1] 1.24 dBm 2.402060 GHz CF 2.402 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 4 JAN 2023 08:22:59
CH00 30MHz~1000MHz	 Ref Level 20.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWI 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 M1[1] -60.79 dBm 561.6890 MHz 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 4 JAN 2023 08:23:15
CH00 1GHz~26GHz	 Ref Level 20.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWI 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 M1[1] -60.62 dBm 4.803333 GHz 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 4 JAN 2023 08:23:11

CH19 Reference level	 Date: 4 JUN 2023 09:25:06
CH19 30MHz~1000MHz	 Date: 4 JUN 2023 09:25:22
CH19 1GHz~26GHz	 Date: 4 JUN 2023 09:25:38

CH39 Reference level	 The spectrum plot shows a single sharp peak at 2.48 GHz. The y-axis represents power in dBm, ranging from -60 to 20. The x-axis represents frequency in MHz, with a span of 30.0 MHz. The peak is labeled with a count of 100/100 and a power level of 1.42 dBm.
CH39 30MHz~1000MHz	 The spectrum plot shows a noisy baseline across the 30 MHz to 1000 MHz range. The y-axis ranges from -70 to 10 dBm. The x-axis ranges from 30.0 MHz to 1.0 GHz. A red horizontal line is drawn at -18.580 dBm. The plot is labeled with a count of 10/10 and a power level of -60.89 dBm.
CH39 1GHz~26GHz	 The spectrum plot shows a noisy baseline across the 1 GHz to 26 GHz range. The y-axis ranges from -70 to 10 dBm. The x-axis ranges from 1.0 GHz to 26.0 GHz. A red horizontal line is drawn at -18.580 dBm. The plot is labeled with a count of 10/10 and a power level of -47.89 dBm.

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