

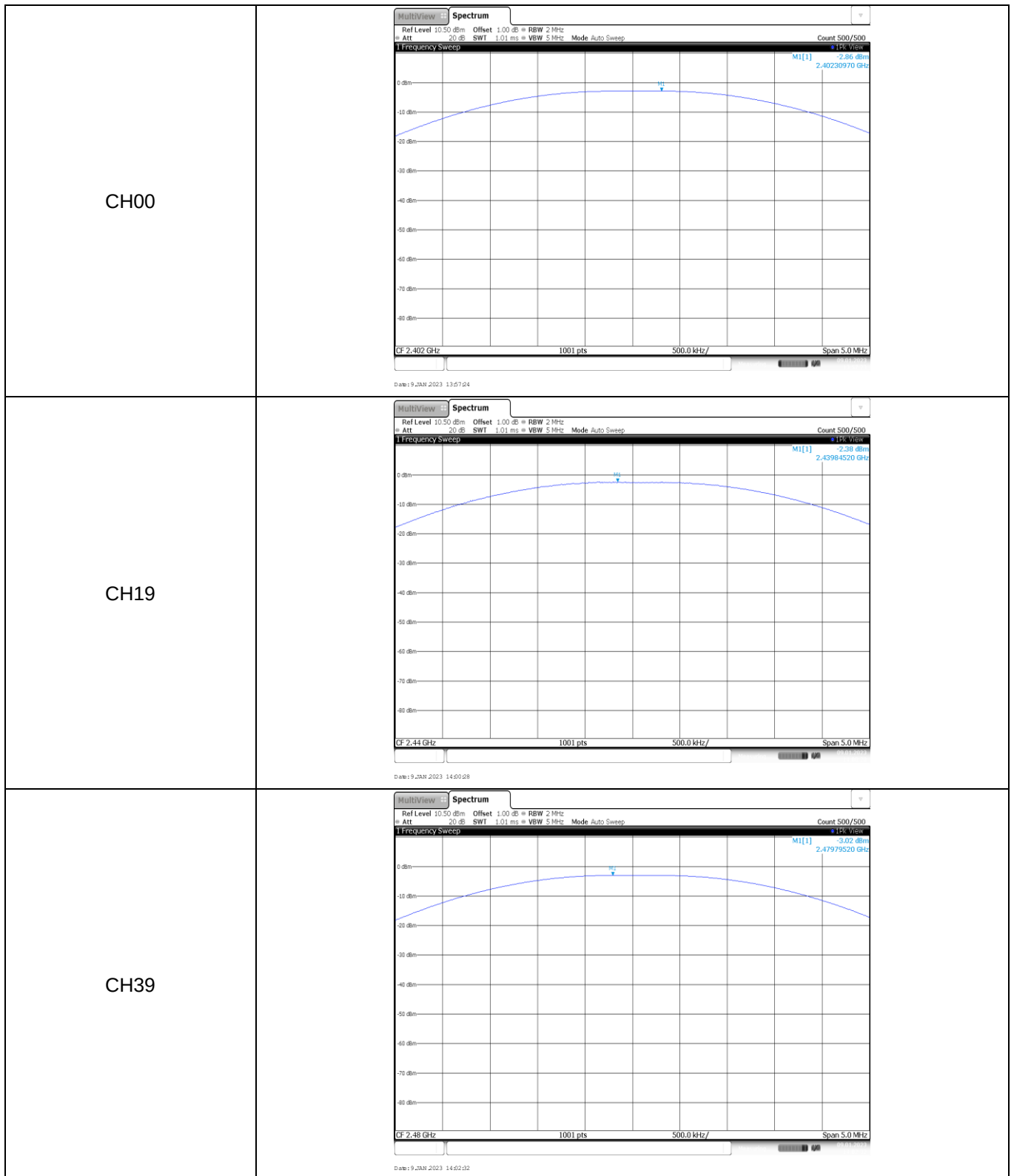
APPENDIX REPORT

Project No.	SHT2211065401EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT22110654005	Model No.	BJM-20
Start test date	2023-01-09	Finish date	2023-01-09
Temperature	24.1℃	Humidity	54%
Test Engineer	Xiaoxiao Li	Auditor	Xiaodong Zhuo

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

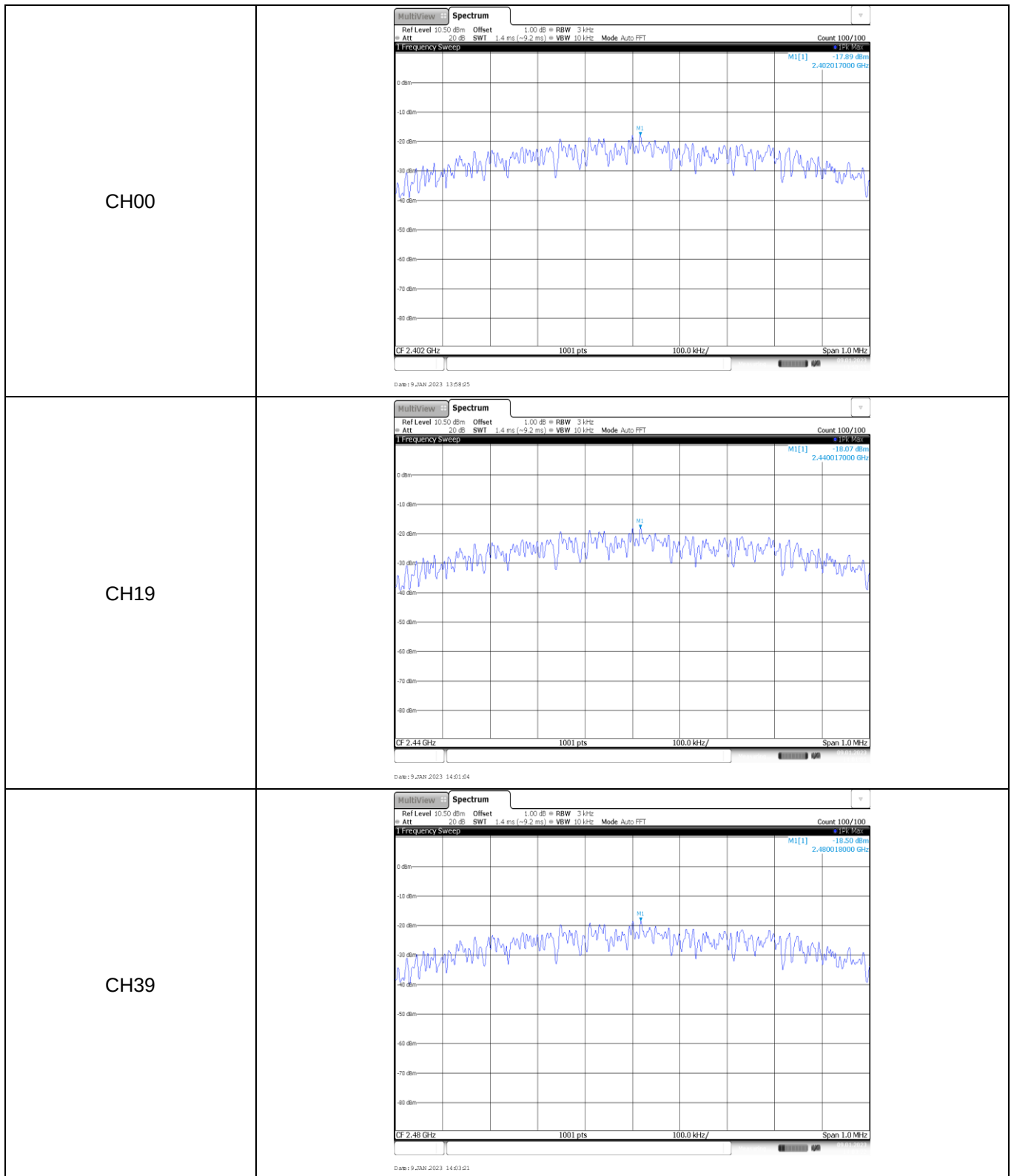
Appendix A: Peak Output Power

Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
BT-BLE	00	-2.86	-2.90	≤ 30.00	Pass
	19	-2.38	-2.69		
	39	-3.02	-3.03		



Appendix B: Power Spectral Density

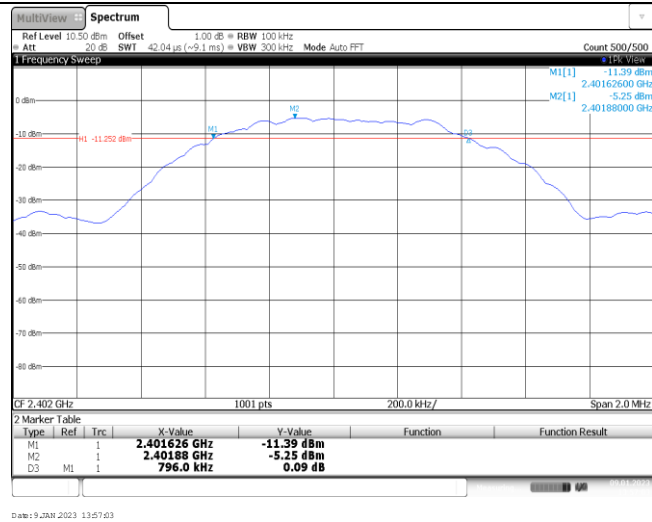
Type	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
BT-BLE	00	-17.89	≤8.00	Pass
	19	-18.07		
	39	-18.50		



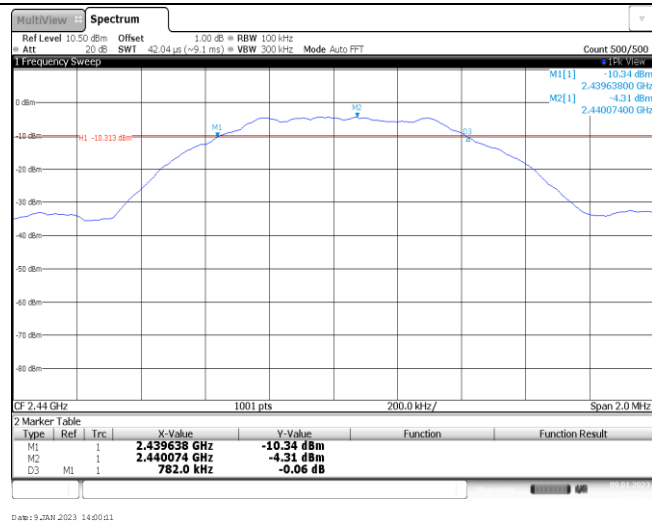
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
BT-BLE	00	796.00	≥500	Pass
	19	782.00		
	39	792.00		

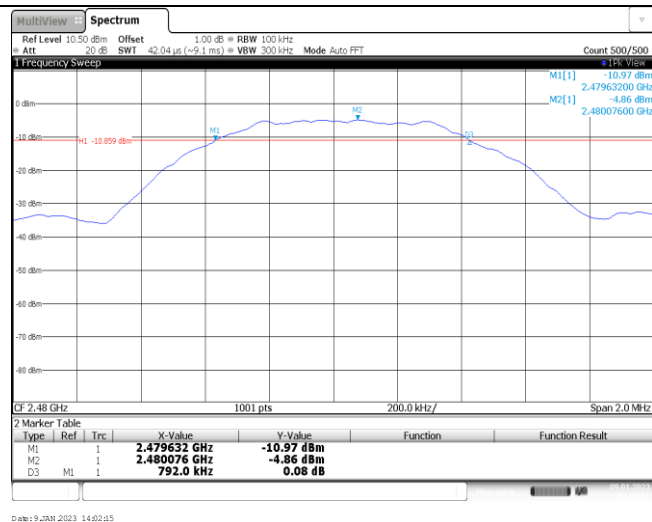
CH00



CH19



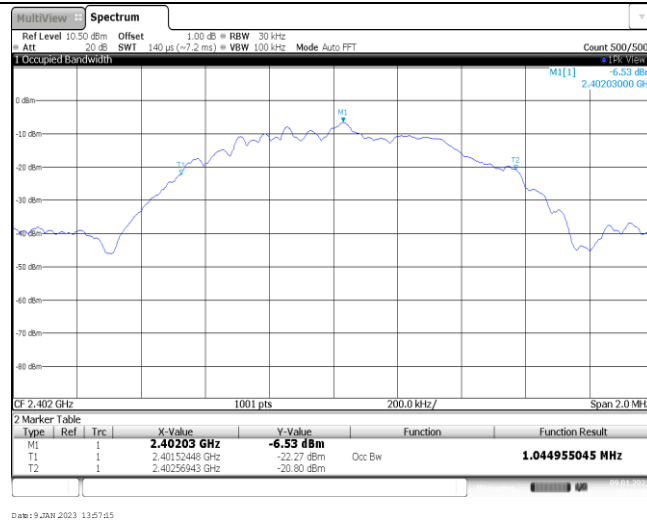
CH39



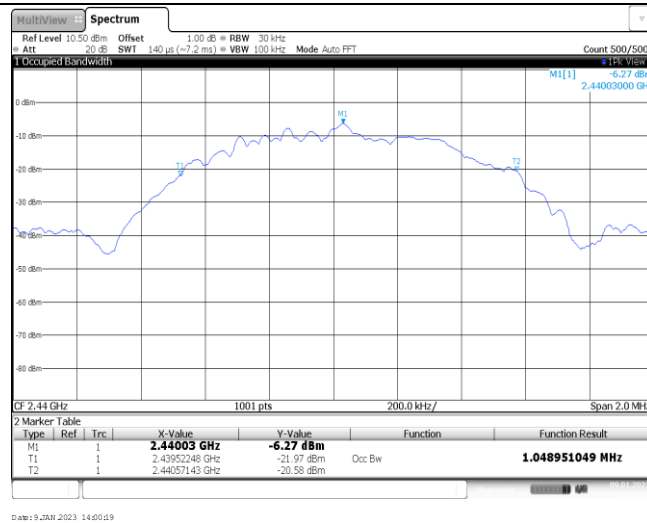
Appendix D: 99% Occupied Bandwidth

Type	Channel	99% Occupied Bandwidth(MHz)	Limit (kHz)	Result
BT-BLE	00	1.04	-	Pass
	19	1.05		
	39	1.05		

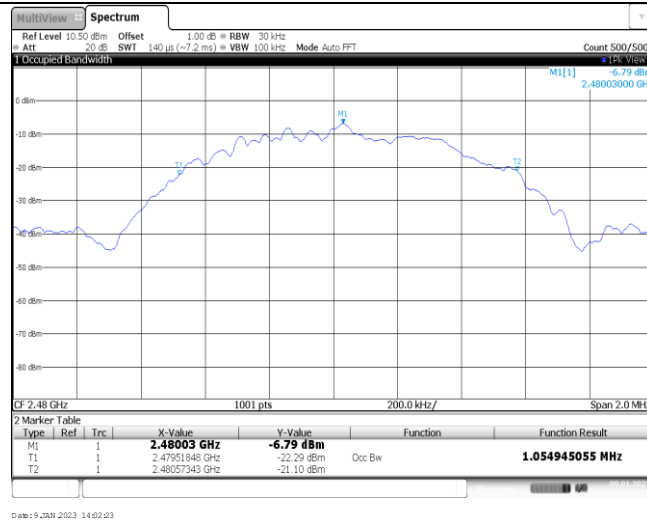
CH00



CH19

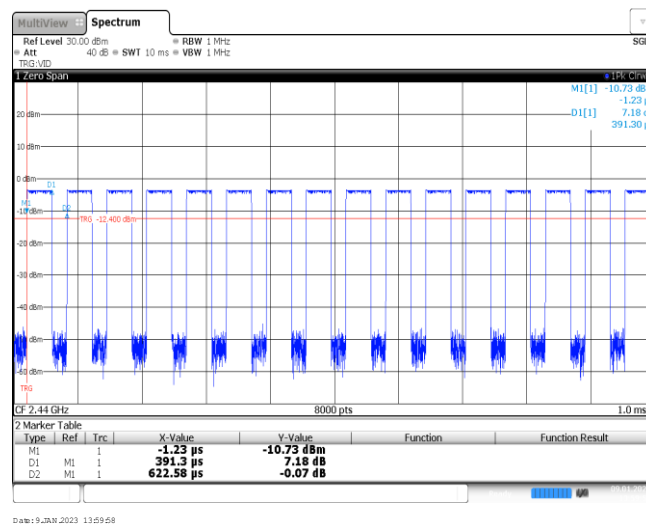


CH39



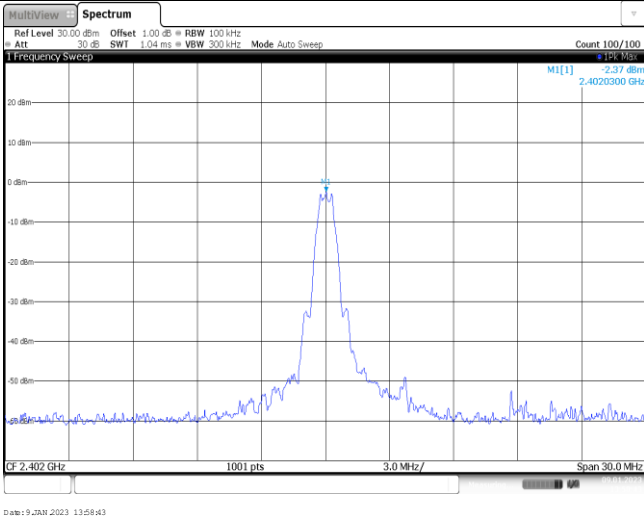
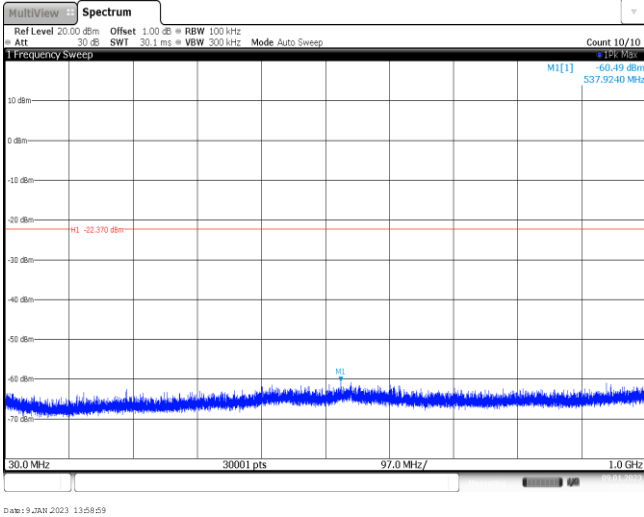
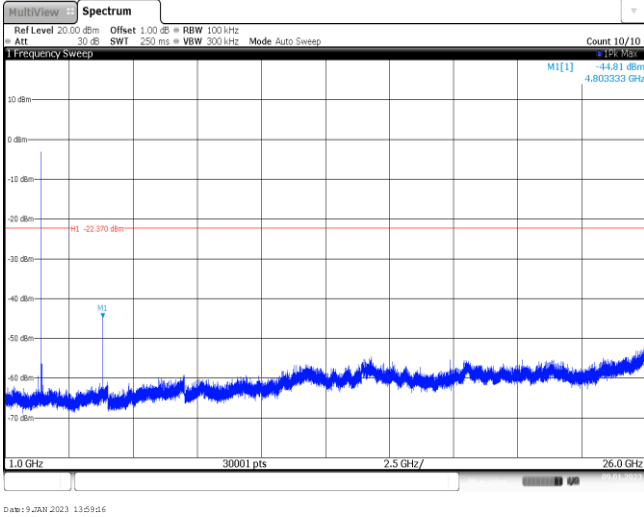
Appendix E: Duty cycle

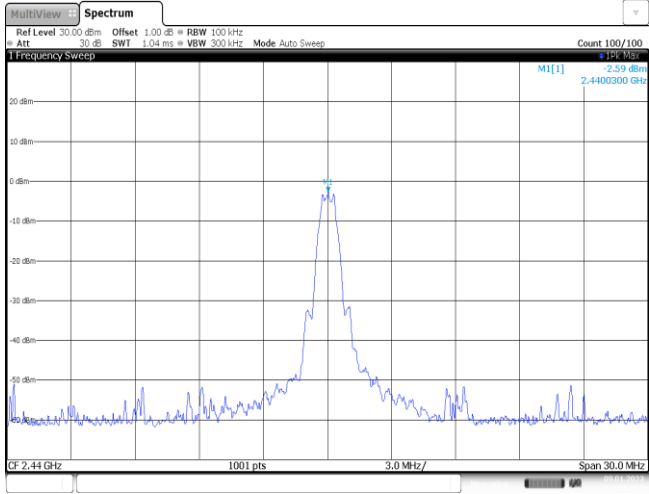
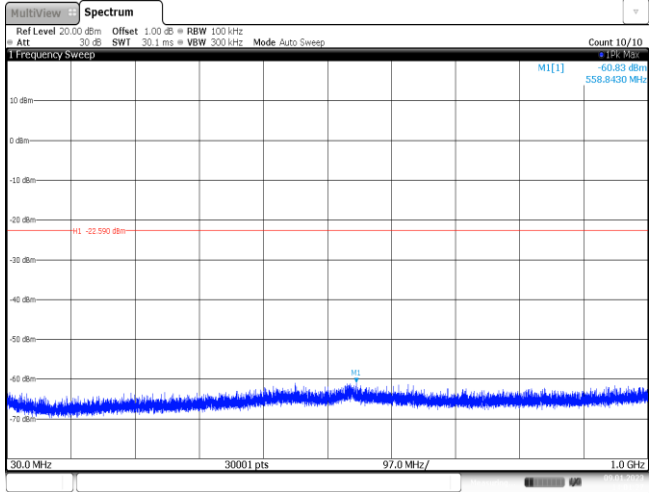
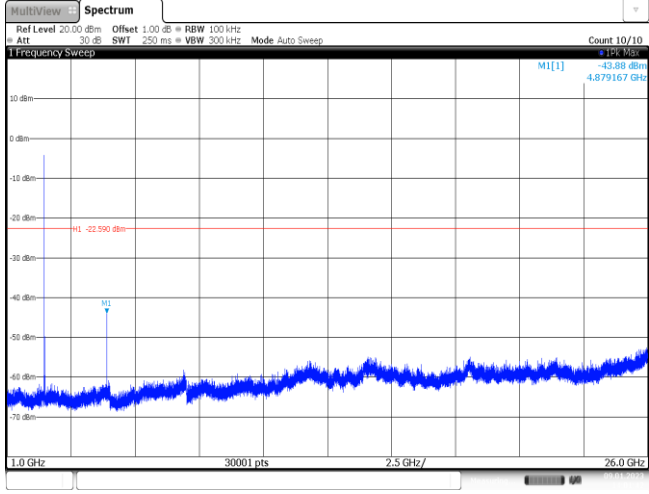
Test Frequency (MHz)	T _{on} time for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on} time (kHz)
2440	0.39	0.62	62.9%	2.6

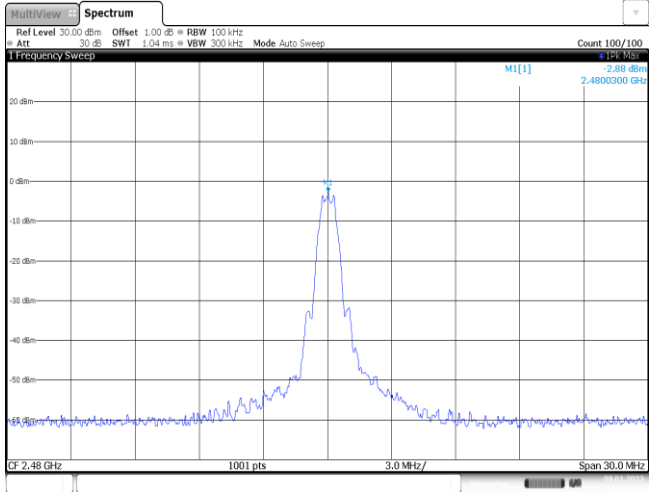
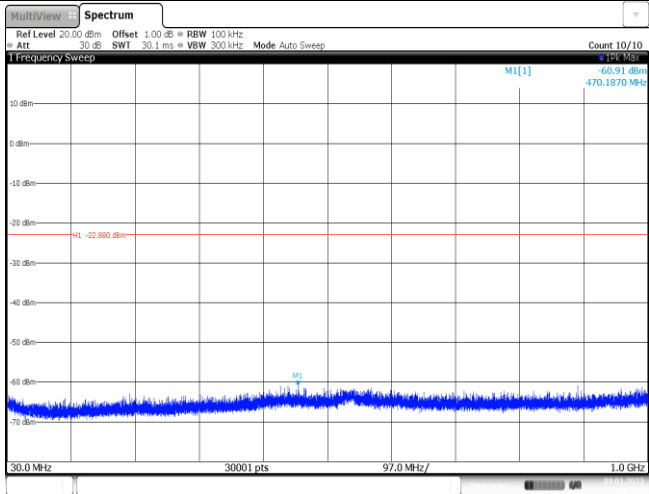
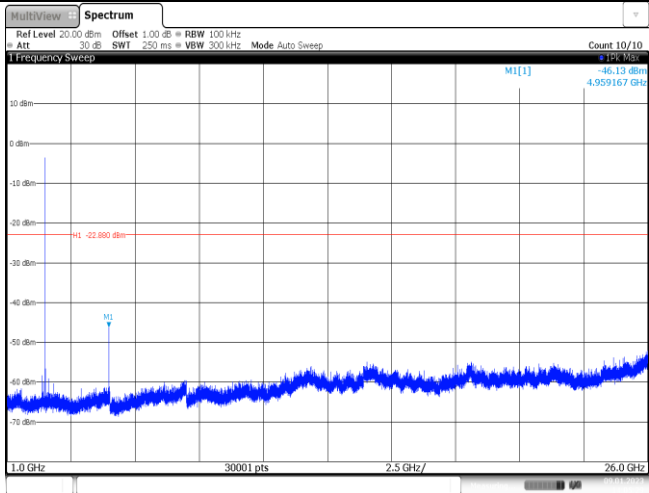


Appendix F: Band edge and Spurious Emissions (conducted)

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 M1[1] -3.03 dBm 2.402010 GHz M2[1] -52.75 dBm 2.400000 GHz 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 <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>-3.03 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-52.75 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-70.69 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-74.22 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.39968 GHz</td><td>-53.77 dBm</td><td></td><td></td></tr></table> Date: 9 JAN 2023 13:58:05	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.40201 GHz	-3.03 dBm			M2	1		2.4 GHz	-52.75 dBm			M3	1		2.39 GHz	-70.69 dBm			M4	1		2.31 GHz	-74.22 dBm			M5	1		2.39968 GHz	-53.77 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																					
M1	1		2.40201 GHz	-3.03 dBm																																							
M2	1		2.4 GHz	-52.75 dBm																																							
M3	1		2.39 GHz	-70.69 dBm																																							
M4	1		2.31 GHz	-74.22 dBm																																							
M5	1		2.39968 GHz	-53.77 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 M1[1] -3.26 dBm 2.4800330 GHz M2[1] -55.97 dBm 2.4835000 GHz 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 <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>2.480033 GHz</td><td>-3.26 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.48335 GHz</td><td>-55.97 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-70.16 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.483522 GHz</td><td>-56.09 dBm</td><td></td><td></td></tr></table> Date: 9 JAN 2023 14:03:01	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.480033 GHz	-3.26 dBm			M2	1		2.48335 GHz	-55.97 dBm			M3	1		2.5 GHz	-70.16 dBm			M4	1		2.483522 GHz	-56.09 dBm									
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																					
M1	1		2.480033 GHz	-3.26 dBm																																							
M2	1		2.48335 GHz	-55.97 dBm																																							
M3	1		2.5 GHz	-70.16 dBm																																							
M4	1		2.483522 GHz	-56.09 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] 2.37 dBm 2.4026300 GHz 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm CF 2.402 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 9 JAN 2023 13:56:43
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] -60.49 dBm 537.5240 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 JAN 2023 13:58:59
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] -44.81 dBm 4.805333 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 JAN 2023 13:59:16

CH19 Reference level	 Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWF 1.04 ms VBW 300 kHz Mode Auto Sweep Count 100/100 M1[1] -2.59 dBm 2.4400300 GHz CF 2.44 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 9 JAN 2023 14:01:10
CH19 30MHz~1000MHz	 Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWF 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 M1[1] -60.83 dBm 558.8430 MHz 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 9 JAN 2023 14:01:26
CH19 1GHz~26GHz	 Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWF 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 M1[1] -43.88 dBm 4.879167 GHz 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 9 JAN 2023 14:01:43

CH39 Reference level	 Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 30.0 dB SWF 1.04 ms VBW 300 kHz Mode Auto Sweep Count 100/100 M1[1] -2.88 dBm 2.4800300 GHz CF 2.48 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 9 JAN 2023 14:04:56
CH39 30MHz~1000MHz	 Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30.0 dB SWF 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 M1[1] -60.91 dBm 470.1870 MHz M1 -22.800 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 9 JAN 2023 14:05:02
CH39 1GHz~26GHz	 Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30.0 dB SWF 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 M1[1] -46.13 dBm 4.959167 GHz M1 -22.800 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 9 JAN 2023 14:05:08

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