

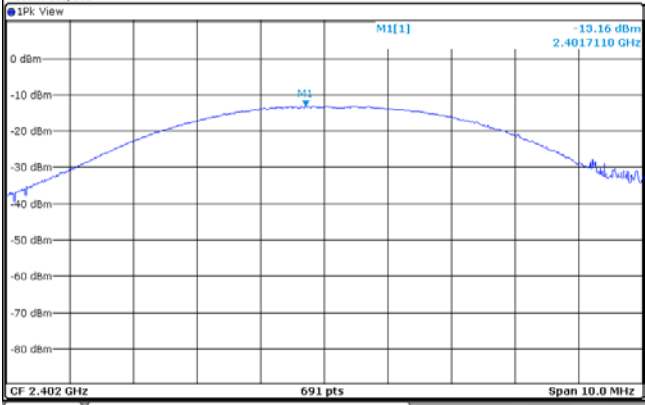
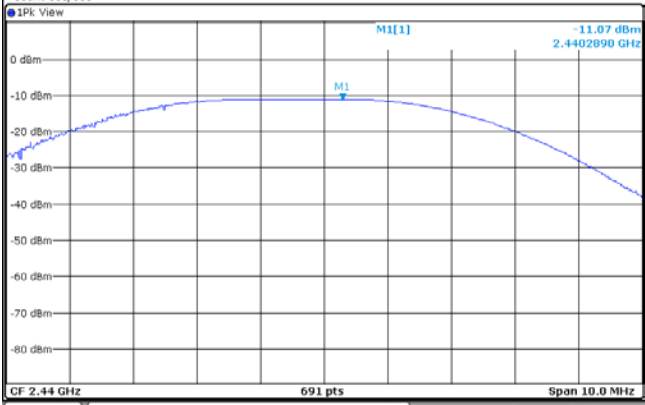
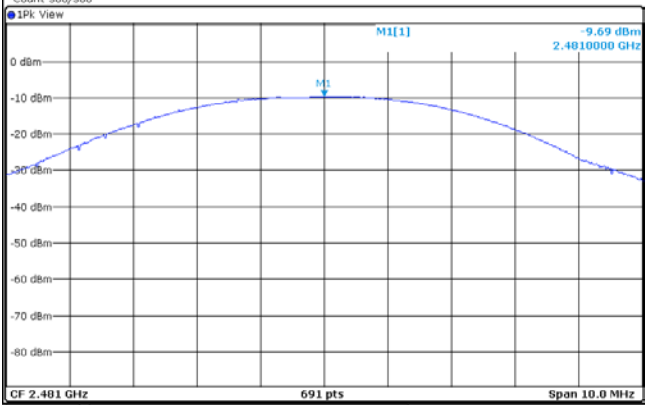
APPENDIX REPORT

Project No.	SHT2204077915EW		
Test sample No.	YPHT22040779020	Model No.	SM9116 main unit
Start test date	2023-05-12	Finish date	2023-05-12
Temperature	24.4℃	Humidity	48%
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

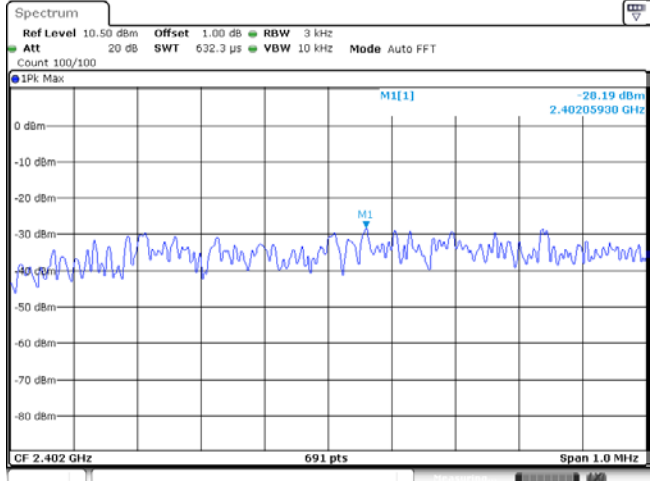
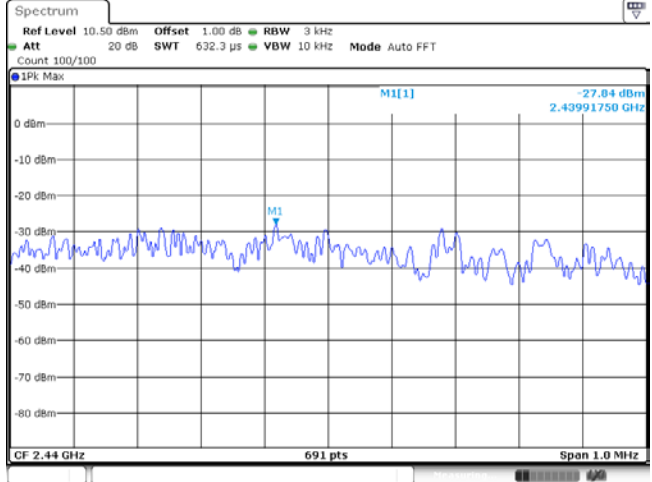
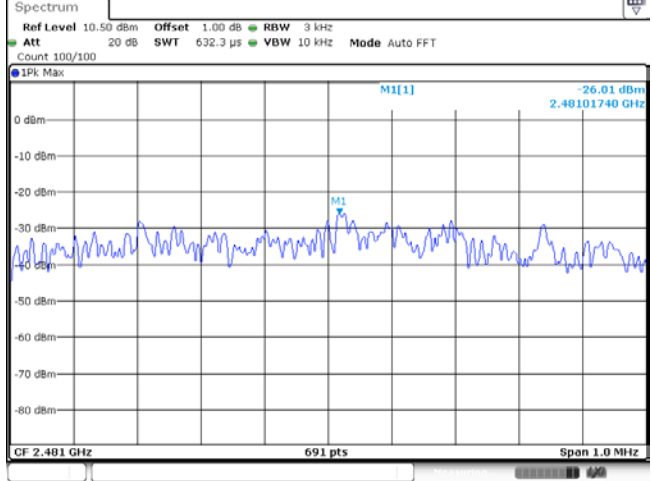
Appendix A: Peak Output Power

Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
FSK	00	-13.16	-13.20	≤ 30.00	Pass
	38	-11.07	-11.15		
	79	-9.69	-9.72		

CH00	Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 3 MHz Att 20 dB SWT 1 ms VBW 10 MHz Mode Auto Sweep Count 500/500 IPk View  Date:12 MAY 2023 13:46:55
CH38	Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 3 MHz Att 20 dB SWT 1 ms VBW 10 MHz Mode Auto Sweep Count 500/500 IPk View  Date:12 MAY 2023 13:56:17
CH79	Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 3 MHz Att 20 dB SWT 1 ms VBW 10 MHz Mode Auto Sweep Count 500/500 IPk View  Date:12 MAY 2023 13:58:27

Appendix B: Power Spectral Density

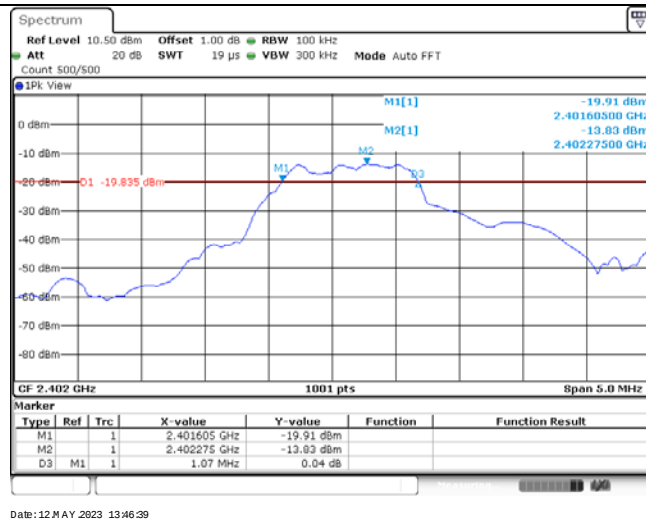
Type	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
FSK	00	-28.19	≤8.00	Pass
	38	-27.84		
	79	-26.01		

CH00	 Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 3 kHz Att 20 dB SWT 632.3 μs VBW 10 kHz Mode Auto FFT Count 100/100 IPK Max M1[1] -20.19 dBm 2.40205930 GHz CF 2.402 GHz 691 pts Span 1.0 MHz Date: 12 MAY 2023 13:47:29
CH38	 Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 3 kHz Att 20 dB SWT 632.3 μs VBW 10 kHz Mode Auto FFT Count 100/100 IPK Max M1[1] -27.04 dBm 2.43991750 GHz CF 2.44 GHz 691 pts Span 1.0 MHz Date: 12 MAY 2023 13:56:31
CH79	 Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 3 kHz Att 20 dB SWT 632.3 μs VBW 10 kHz Mode Auto FFT Count 100/100 IPK Max M1[1] -26.01 dBm 2.40101740 GHz CF 2.401 GHz 691 pts Span 1.0 MHz Date: 12 MAY 2023 13:58:42

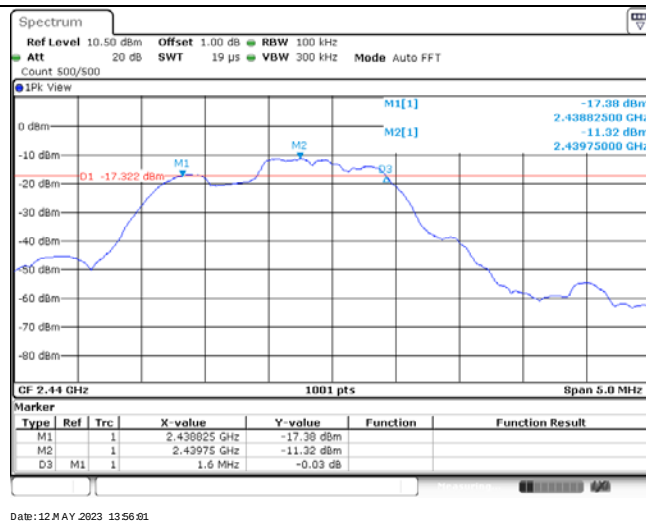
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
FSK	00	1070.00	≥500	Pass
	38	1600.00		
	79	840.00		

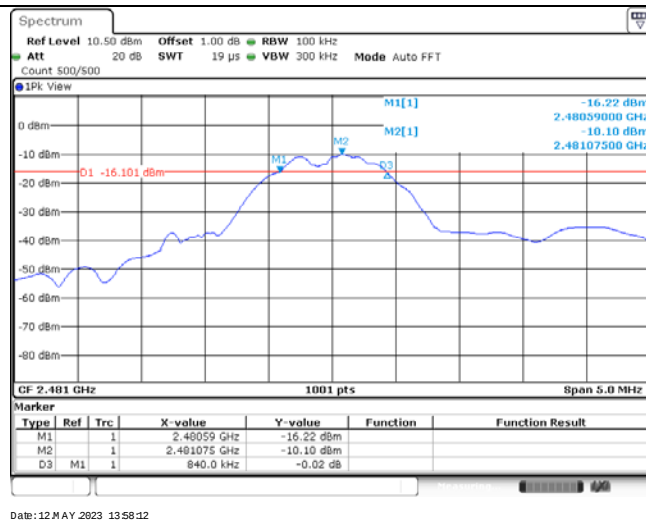
CH00



CH38



CH79



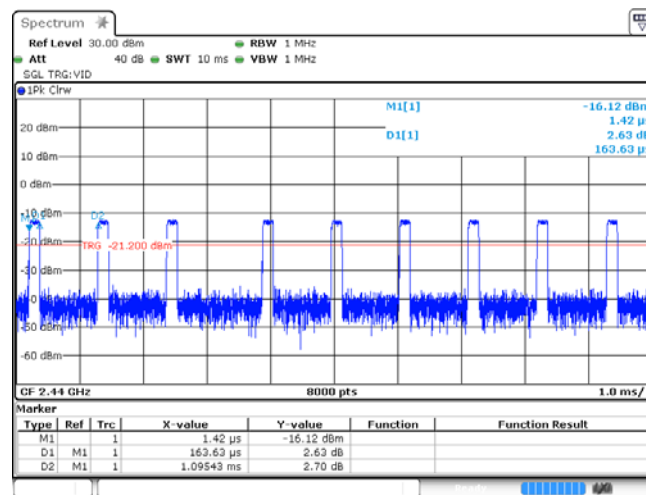
Appendix D: 99% Occupied Bandwidth

Type	Channel	99% Occupied Bandwidth(MHz)	Limit (kHz)	Result
FSK	00	1.43	-	Pass
	38	1.96		
	79	1.23		

CH00	Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 30 kHz Att 20 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT Count 500/500 IPk View Date: 12 MAY 2023 13:46:46
CH38	Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 30 kHz Att 20 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT Count 500/500 IPk View Date: 12 MAY 2023 13:56:09
CH79	Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 30 kHz Att 20 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT Count 500/500 IPk View Date: 12 MAY 2023 13:58:19

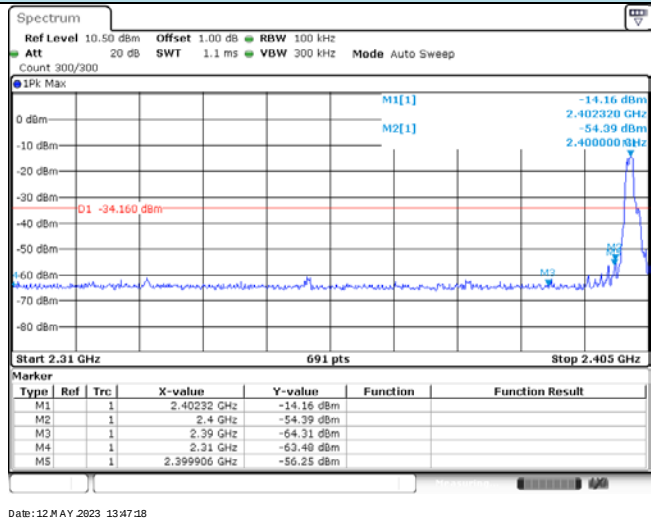
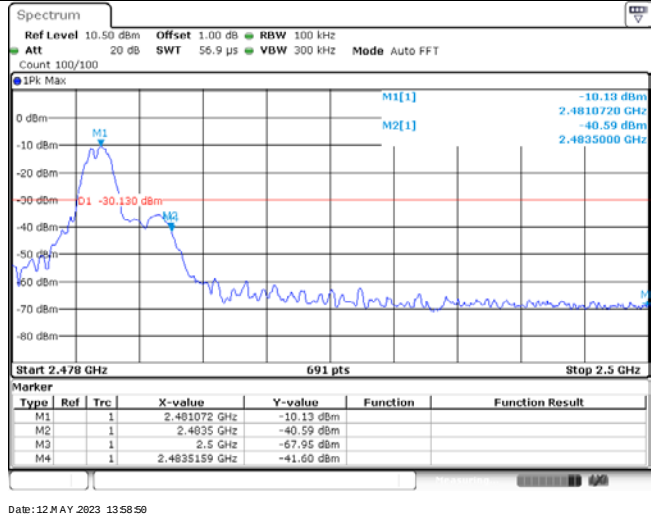
Appendix E: Duty cycle

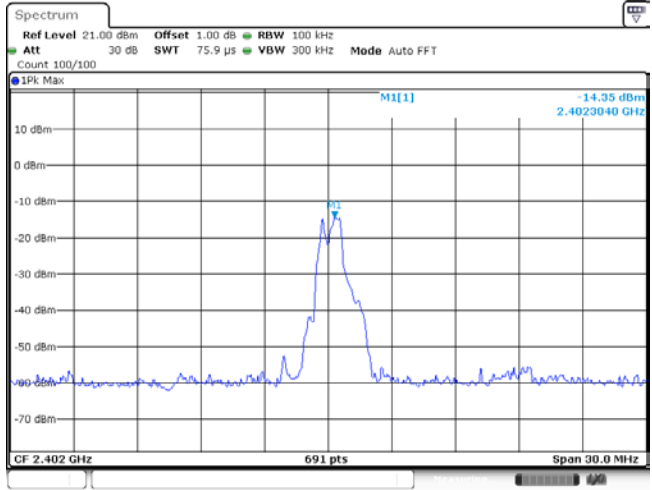
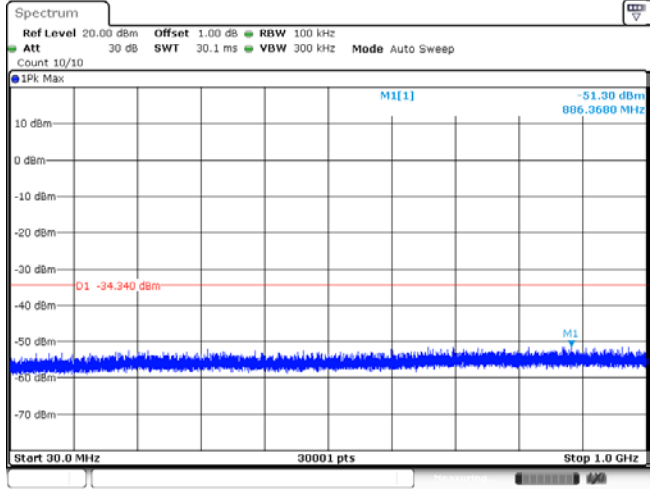
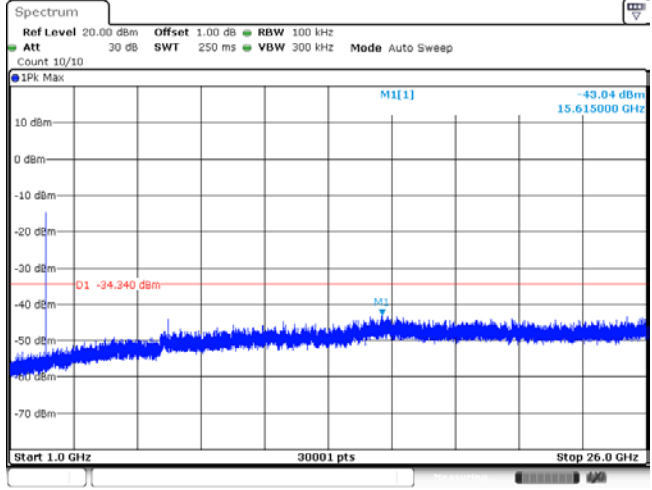
Test Frequency (MHz)	T _{on} time for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on} time (kHz)
2440	0.16	1.10	14.5%	6.25

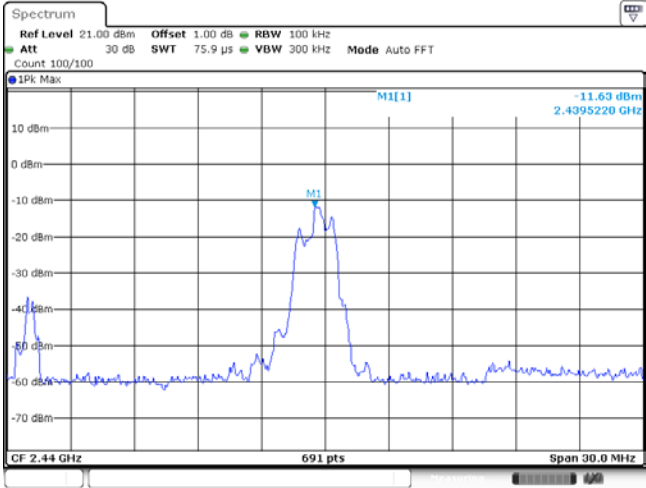
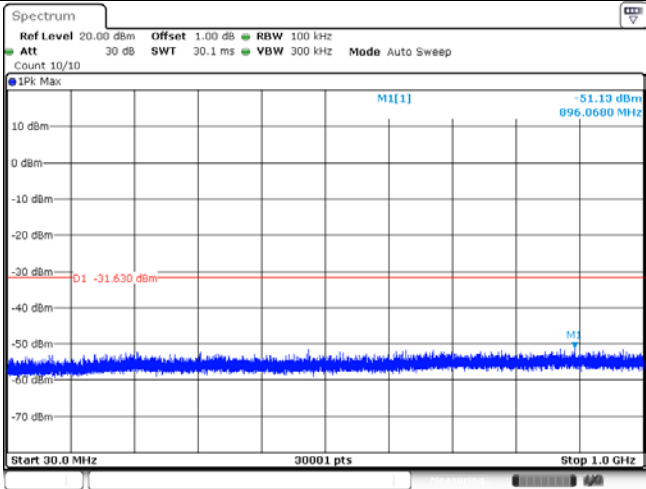
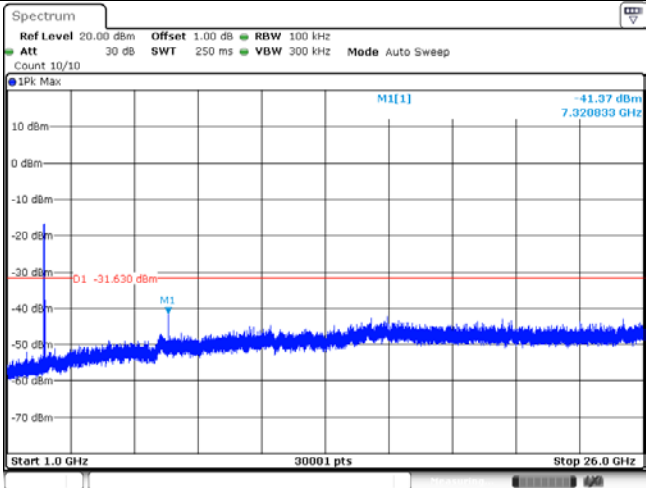


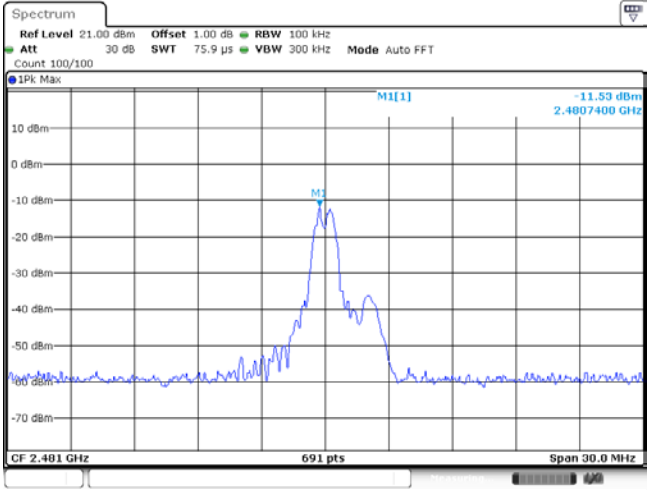
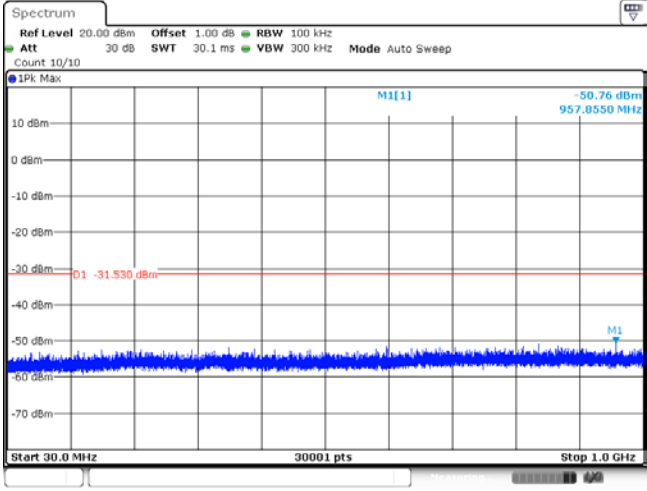
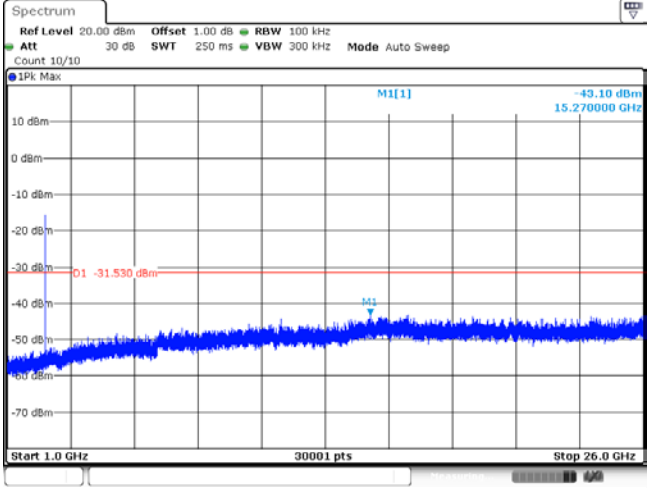
Date: 12 MAY 2023 13:55:29

Appendix F: Band edge and Spurious Emissions (conducted)

Test Item:	Band edge																																										
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  Start 2.31 GHz 691 pts Stop 2.405 GHz <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>2.40232 GHz</td><td>-14.16 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-54.39 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-64.31 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-63.48 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.399906 GHz</td><td>-56.25 dBm</td><td></td><td></td></tr></tbody></table> Date: 12 MAY 2023 13:47:18	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.40232 GHz	-14.16 dBm			M2	1		2.4 GHz	-54.39 dBm			M3	1		2.39 GHz	-64.31 dBm			M4	1		2.31 GHz	-63.48 dBm			M5	1		2.399906 GHz	-56.25 dBm		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																					
M1	1		2.40232 GHz	-14.16 dBm																																							
M2	1		2.4 GHz	-54.39 dBm																																							
M3	1		2.39 GHz	-64.31 dBm																																							
M4	1		2.31 GHz	-63.48 dBm																																							
M5	1		2.399906 GHz	-56.25 dBm																																							
CH79	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  Start 2.478 GHz 691 pts Stop 2.5 GHz <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>2.481072 GHz</td><td>-10.13 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4835 GHz</td><td>-40.59 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-67.95 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.4835159 GHz</td><td>-41.60 dBm</td><td></td><td></td></tr></tbody></table> Date: 12 MAY 2023 13:58:59	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.481072 GHz	-10.13 dBm			M2	1		2.4835 GHz	-40.59 dBm			M3	1		2.5 GHz	-67.95 dBm			M4	1		2.4835159 GHz	-41.60 dBm									
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																					
M1	1		2.481072 GHz	-10.13 dBm																																							
M2	1		2.4835 GHz	-40.59 dBm																																							
M3	1		2.5 GHz	-67.95 dBm																																							
M4	1		2.4835159 GHz	-41.60 dBm																																							

Test Item:	SE
CH00 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] -14.35 dBm 2.4023040 GHz CF 2.402 GHz 691 pts Span 30.0 MHz Date: 12 MAY 2023 13:51:05
CH00 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] -51.30 dBm 886.3680 MHz Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 12 MAY 2023 13:51:20
CH00 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] -43.04 dBm 15.615000 GHz Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 12 MAY 2023 13:51:35

CH38 Reference level	 Date: 12 MAY 2023 13:56:37
CH38 30MHz~1000MHz	 Date: 12 MAY 2023 13:56:51
CH38 1GHz~26GHz	 Date: 12 MAY 2023 13:57:10

CH79 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 IPk Max M1[1] -11.53 dBm 2.4007400 GHz CF 2.401 GHz 691 pts Span 30.0 MHz Date: 12 MAY 2023 13:58:56
CH79 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 IPk Max M1[1] -50.76 dBm 957.8550 MHz Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 12 MAY 2023 13:59:11
CH79 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 IPk Max M1[1] -43.10 dBm 15.270000 GHz Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 12 MAY 2023 13:59:26

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