

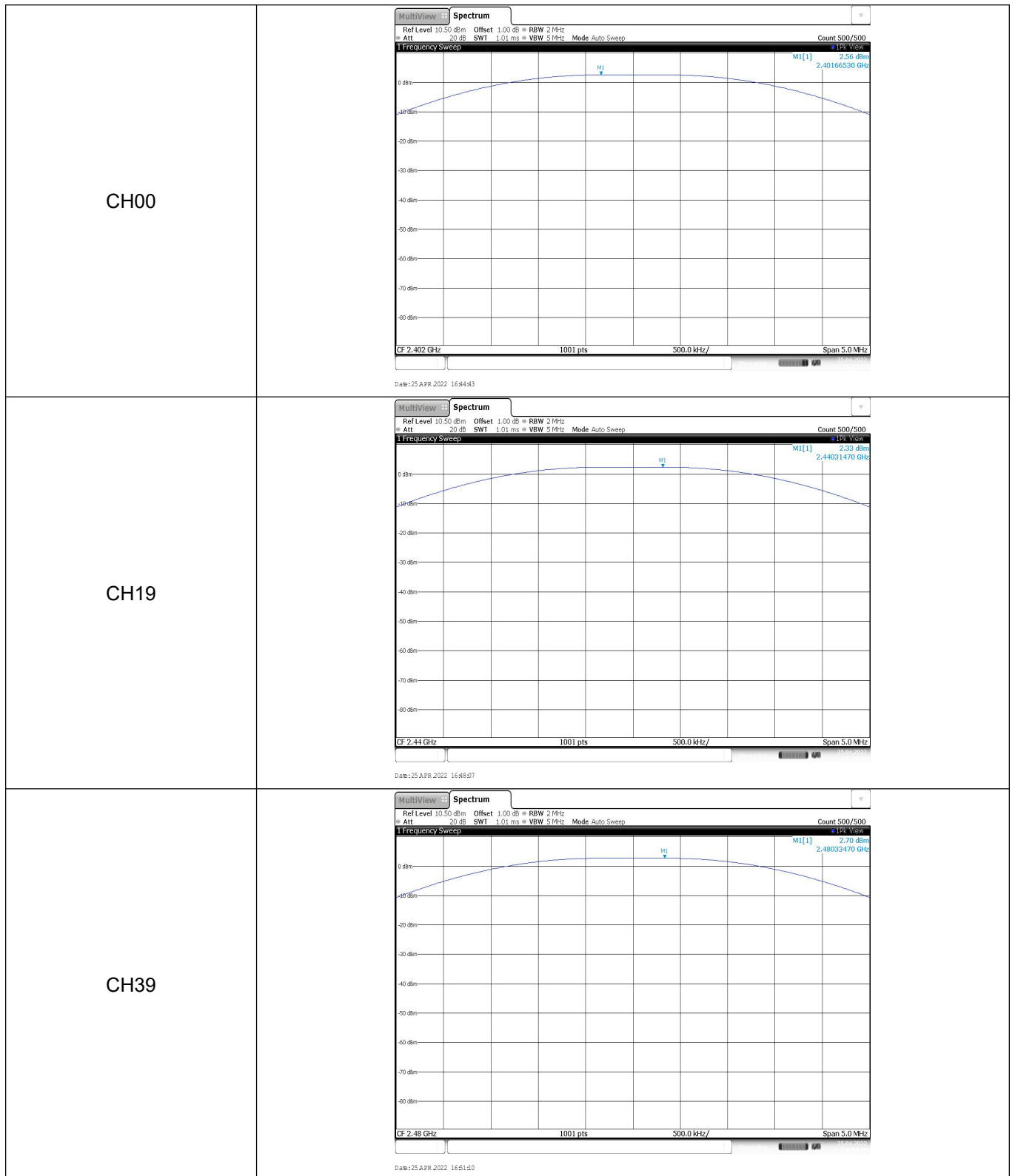
APPENDIX REPORT

Project No.	SHT2203065706EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT22030657006	Model No.	SM120L
Start test date	2022-04-25	Finish date	2022-04-26
Temperature	24.6℃	Humidity	40%
Test Engineer	Xiaoqin 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

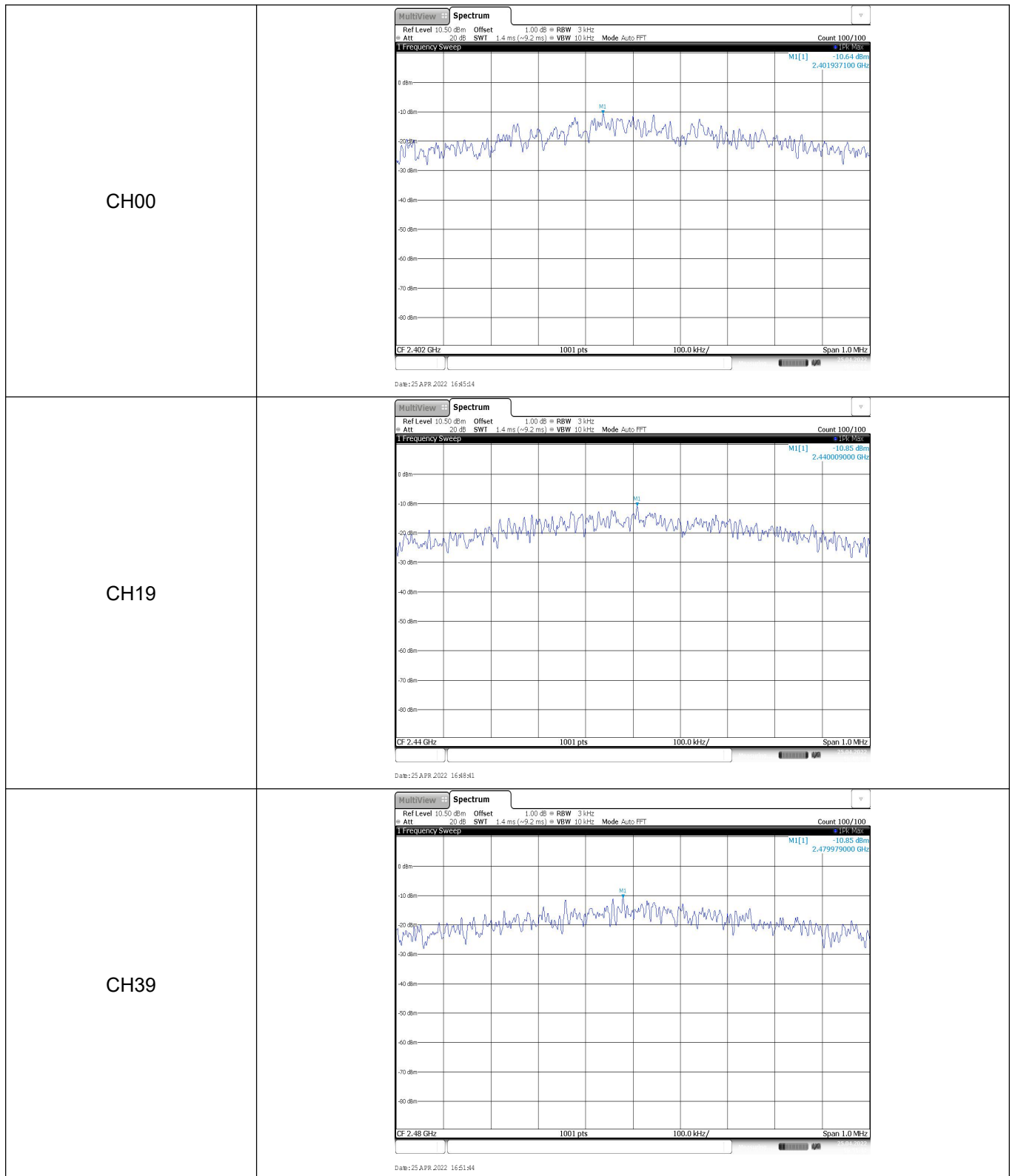
Appendix A: Peak Output Power

Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
BT-BLE	00	2.56	2.55	≤ 30.00	Pass
	19	2.33	2.31		
	39	2.70	2.68		



Appendix B: Power Spectral Density

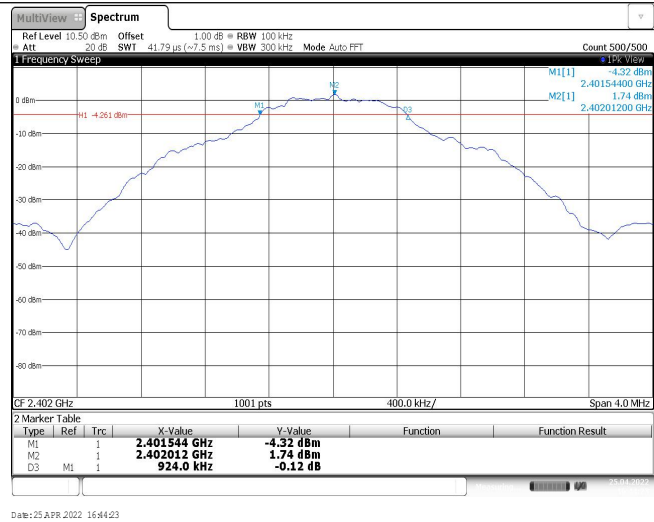
Type	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
BT-BLE	00	-10.64	≤8.00	Pass
	19	-10.85		
	39	-10.85		



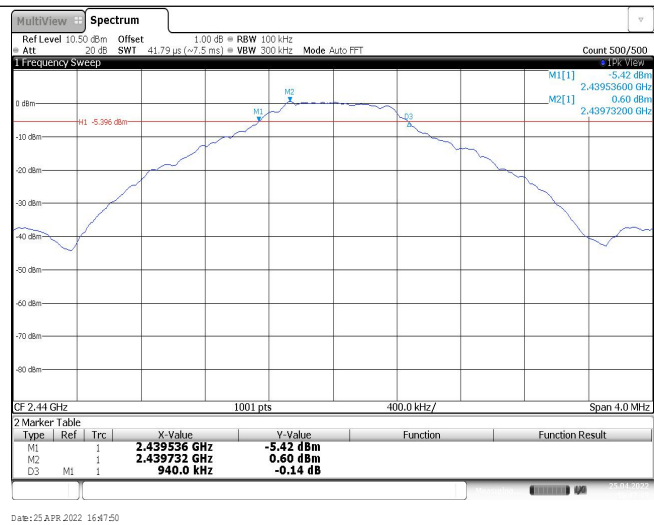
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
BT-BLE	00	924.00	≥500	Pass
	19	940.00		
	39	912.00		

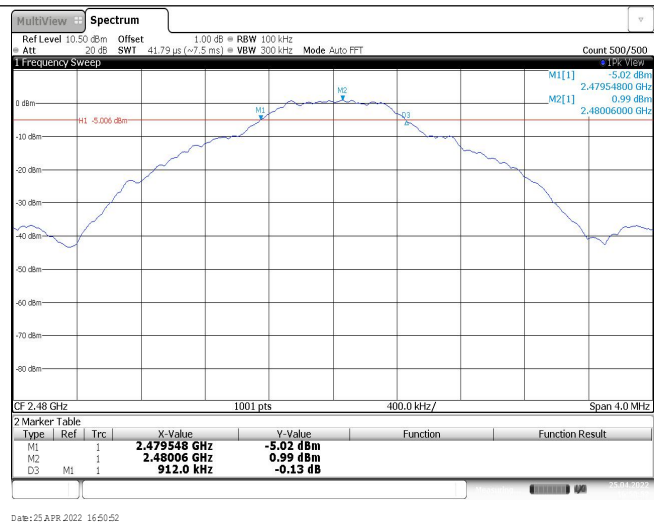
CH00



CH19



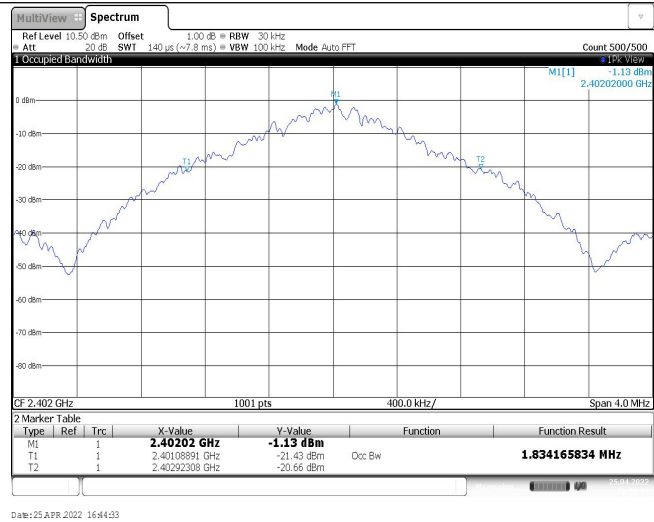
CH39



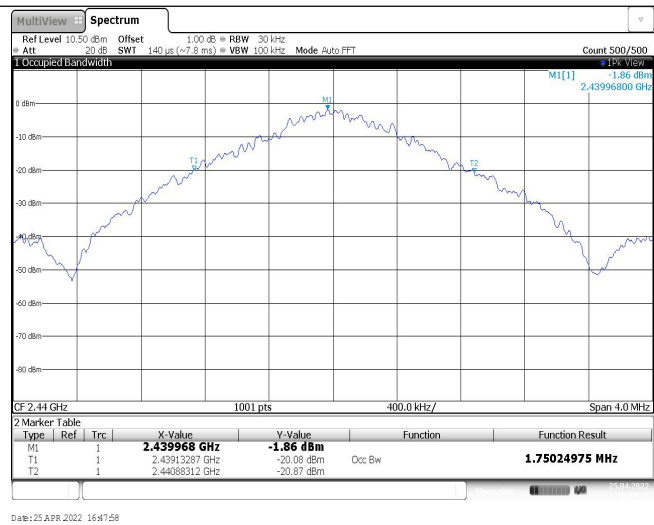
Appendix D: 99% Occupied Bandwidth

Type	Channel	99% Occupied Bandwidth(MHz)	Limit (kHz)	Result
BT-BLE	00	1.83	-	Pass
	19	1.75		
	39	1.85		

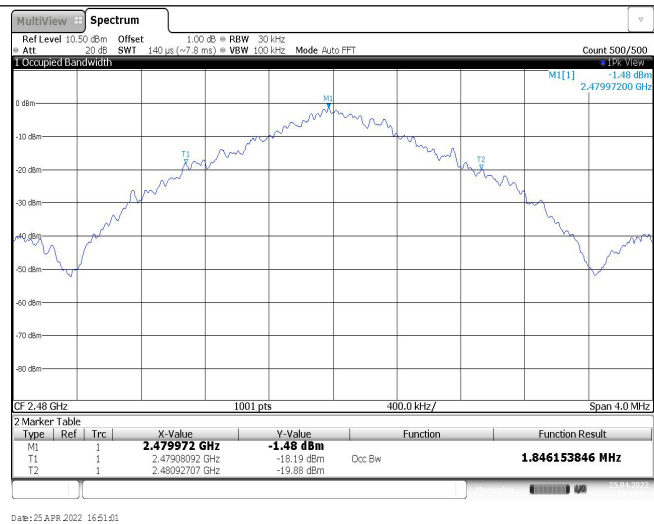
CH00



CH19

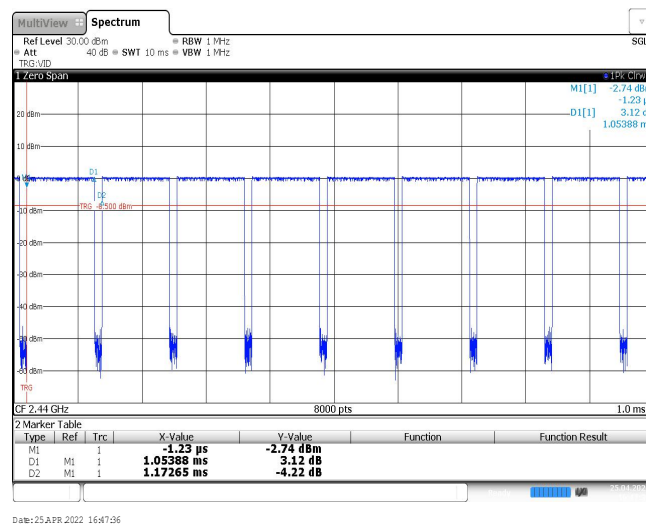


CH39



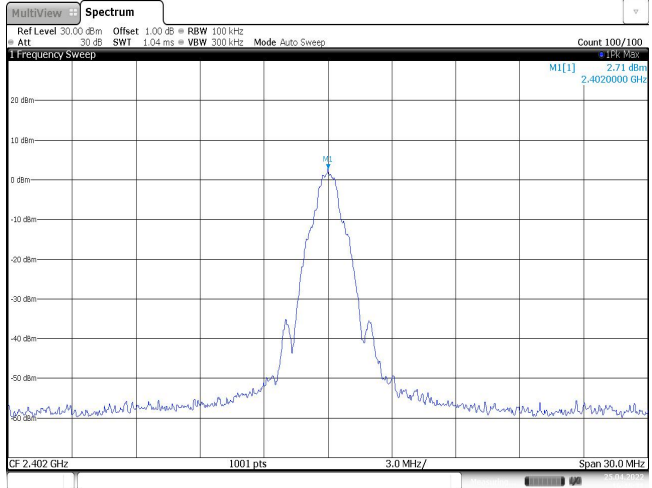
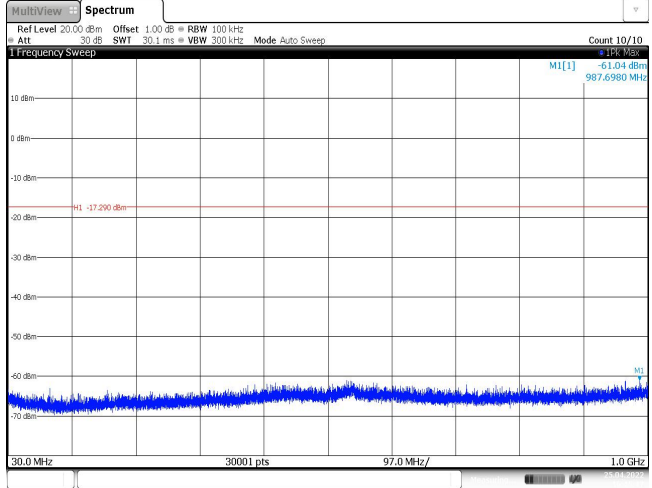
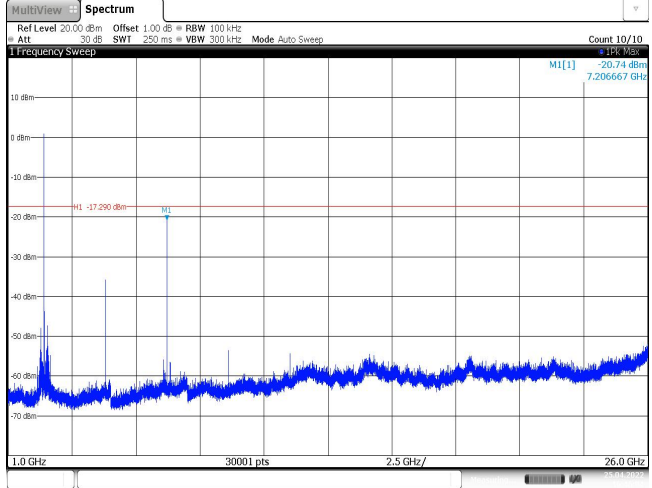
Appendix E: Duty cycle

Test Frequency (MHz)	T _{on} time for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on} time (kHz)
2440	1.05	1.17	89.7%	0.95

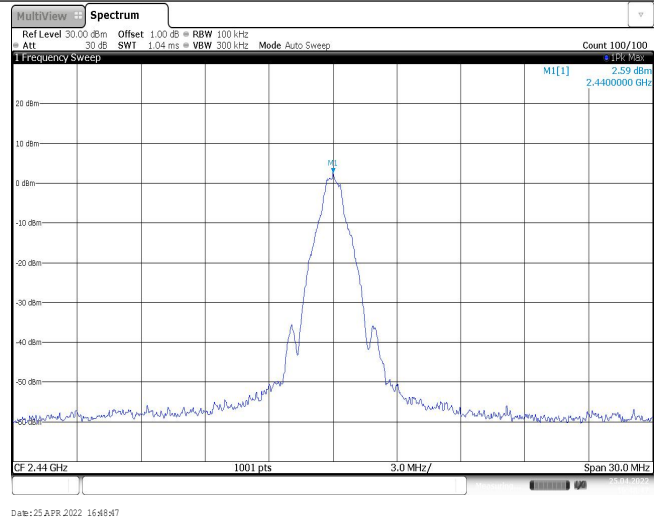


Appendix F: Band edge and Spurious Emissions (conducted)

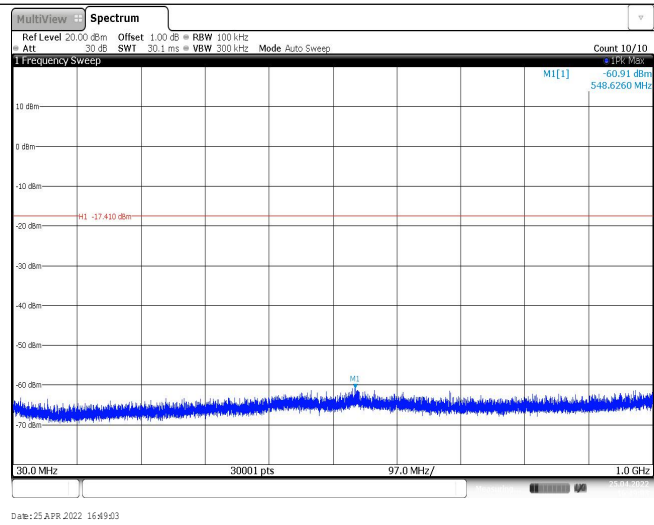
Test Item:	Band edge																																										
CH00	MultiView Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 100 kHz Att 20 dB SWT 1.05 ms VBW 300 kHz Mode Auto Sweep Count 300/300 11K Mhz 1 Frequency Sweep M1 [1] 2.50 dBm M2 [1] -35.76 dBm M2 [1] 2.402010 GHz M2 [1] 2.400000 GHz 0 dBm -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>2.50 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-35.76 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-62.91 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-63.68 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.399965 GHz</td><td>-36.14 dBm</td><td></td><td></td></tr></table> Date: 25 APR 2022 16:45:24	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.40201 GHz	2.50 dBm			M2	1		2.4 GHz	-35.76 dBm			M3	1		2.39 GHz	-62.91 dBm			M4	1		2.31 GHz	-63.68 dBm			M5	1		2.399965 GHz	-36.14 dBm		
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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 11K Mhz 1 Frequency Sweep M1 [1] 2.58 dBm M2 [1] -51.91 dBm M2 [1] 2.479989 GHz M2 [1] 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>2.479989 GHz</td><td>2.58 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4835 GHz</td><td>-51.91 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>2.483522 GHz</td><td>-52.31 dBm</td><td></td><td></td></tr></table> Date: 25 APR 2022 16:51:54	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.479989 GHz	2.58 dBm			M2	1		2.4835 GHz	-51.91 dBm			M3	1		2.5 GHz	-67.95 dBm			M4	1		2.483522 GHz	-52.31 dBm									
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M4	1		2.483522 GHz	-52.31 dBm																																							

Test Item:	SE
CH00 Reference level	 The spectrum plot shows a single sharp peak at 2.402 GHz. The y-axis represents power in dBm, ranging from -80 to 20. The x-axis represents frequency in MHz, with a span of 30.0 MHz. The peak is labeled with a magnitude of 2.71 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 30.00 dBm, Offset 1.00 dB, RBW 100 kHz, SWI 1.04 ms, VBW 300 kHz, Mode Auto Sweep. The date is 25 APR 2022 16:45:31.
CH00 30MHz~1000MHz	 The spectrum plot shows a wideband noise floor from 30 MHz to 1000 MHz. The y-axis represents power in dBm, ranging from -80 to 10. The x-axis represents frequency in MHz, with a span of 1.0 GHz. The noise floor is relatively flat around -60 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 100 kHz, SWI 30.1 ms, VBW 300 kHz, Mode Auto Sweep. The date is 25 APR 2022 16:45:47.
CH00 1GHz~26GHz	 The spectrum plot shows a wideband noise floor from 1 GHz to 26 GHz. The y-axis represents power in dBm, ranging from -80 to 10. The x-axis represents frequency in GHz, with a span of 26.0 GHz. The noise floor is relatively flat around -60 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 100 kHz, SWI 250 ms, VBW 300 kHz, Mode Auto Sweep. The date is 25 APR 2022 16:46:04.

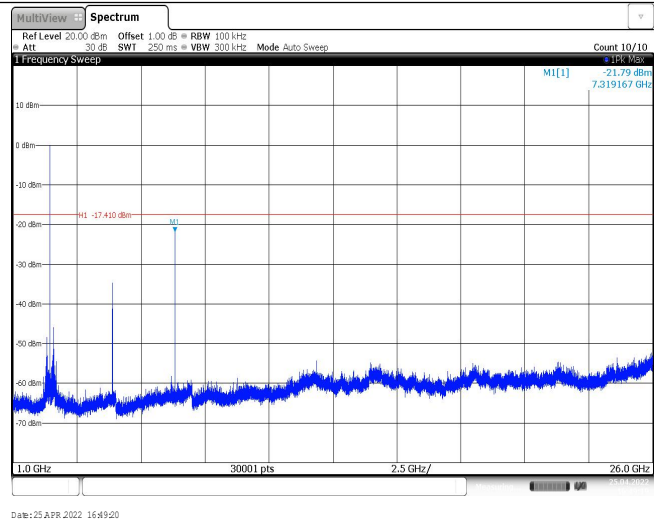
CH19
Reference level

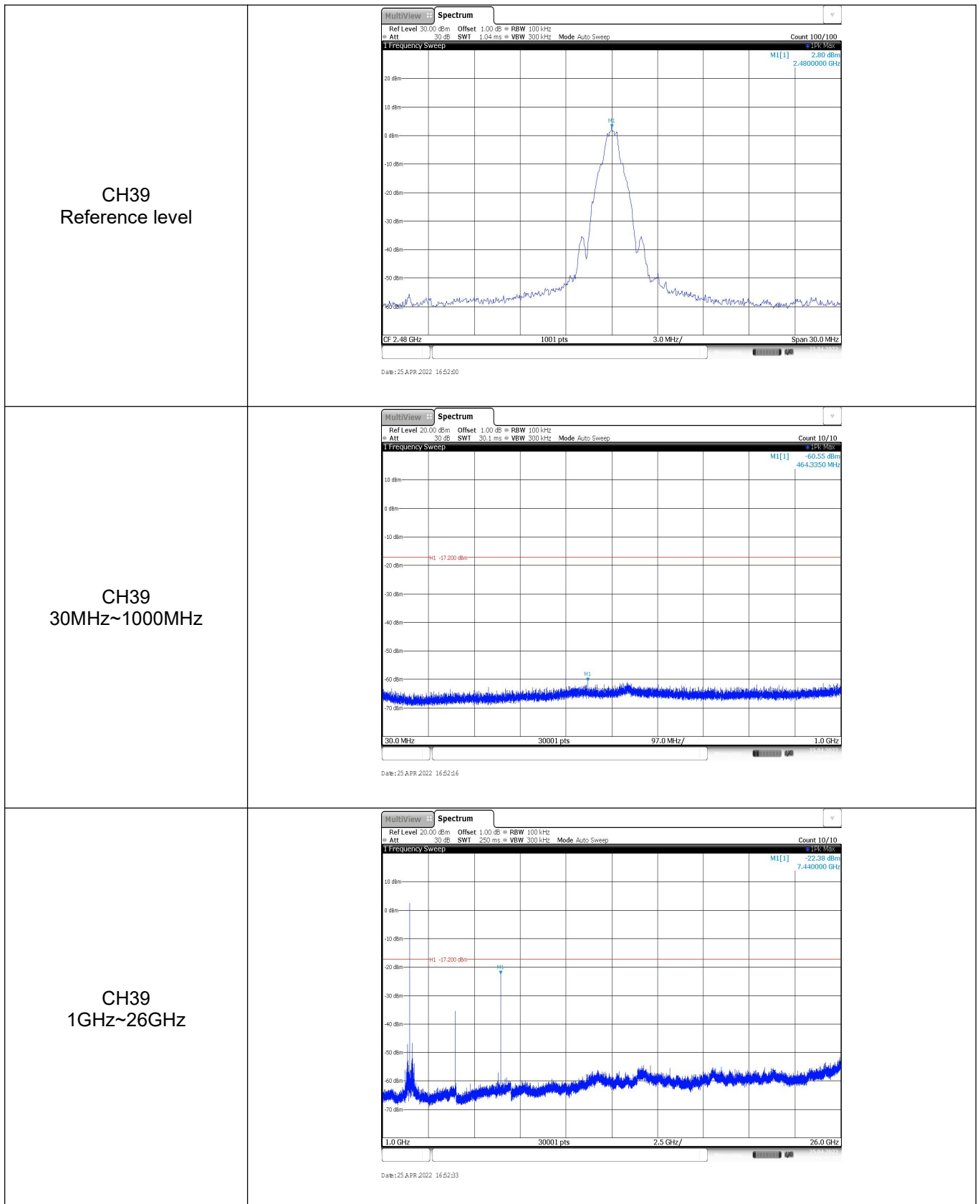


CH19
30MHz~1000MHz



CH19
1GHz~26GHz





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