

APPENDIX REPORT

Project No.	SHT2005106801EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT20050108002	Model No.	L14WA1S
Start test date	2020/6/4	Finish date	2020/6/4
Temperature	25°C	Humidity	50%
Test Engineer	JiongSheng.Feng	Auditor	<i>William.wang</i>

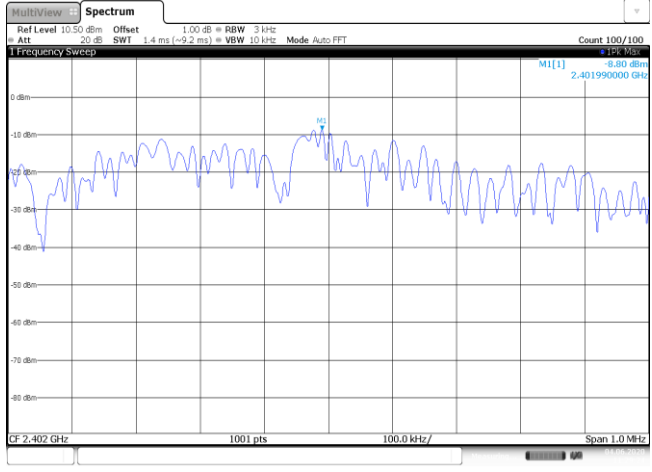
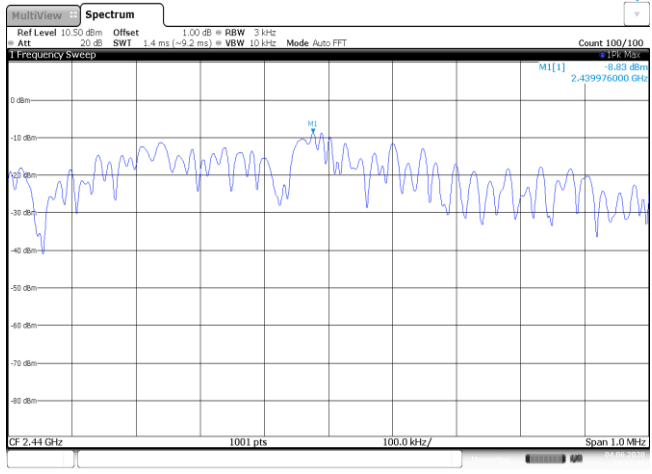
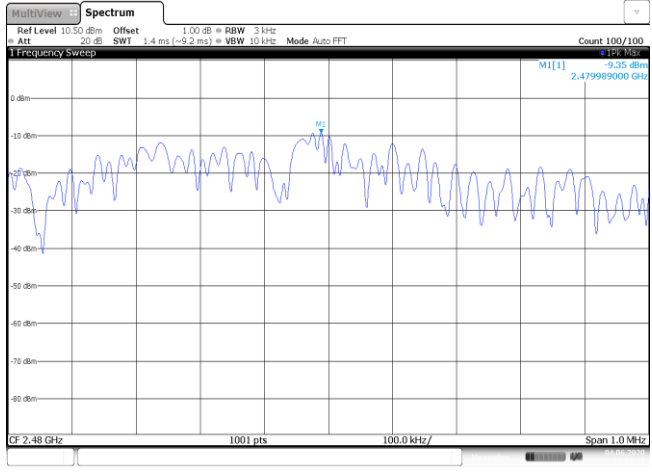
Appendix clause	Test item	Result
A	Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

Appendix A: Peak Output Power

Type	Channel	Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
BT-BLE	00	9.74	9.71	≤30.00	Pass
	19	9.68	9.65		
	39	9.22	9.20		

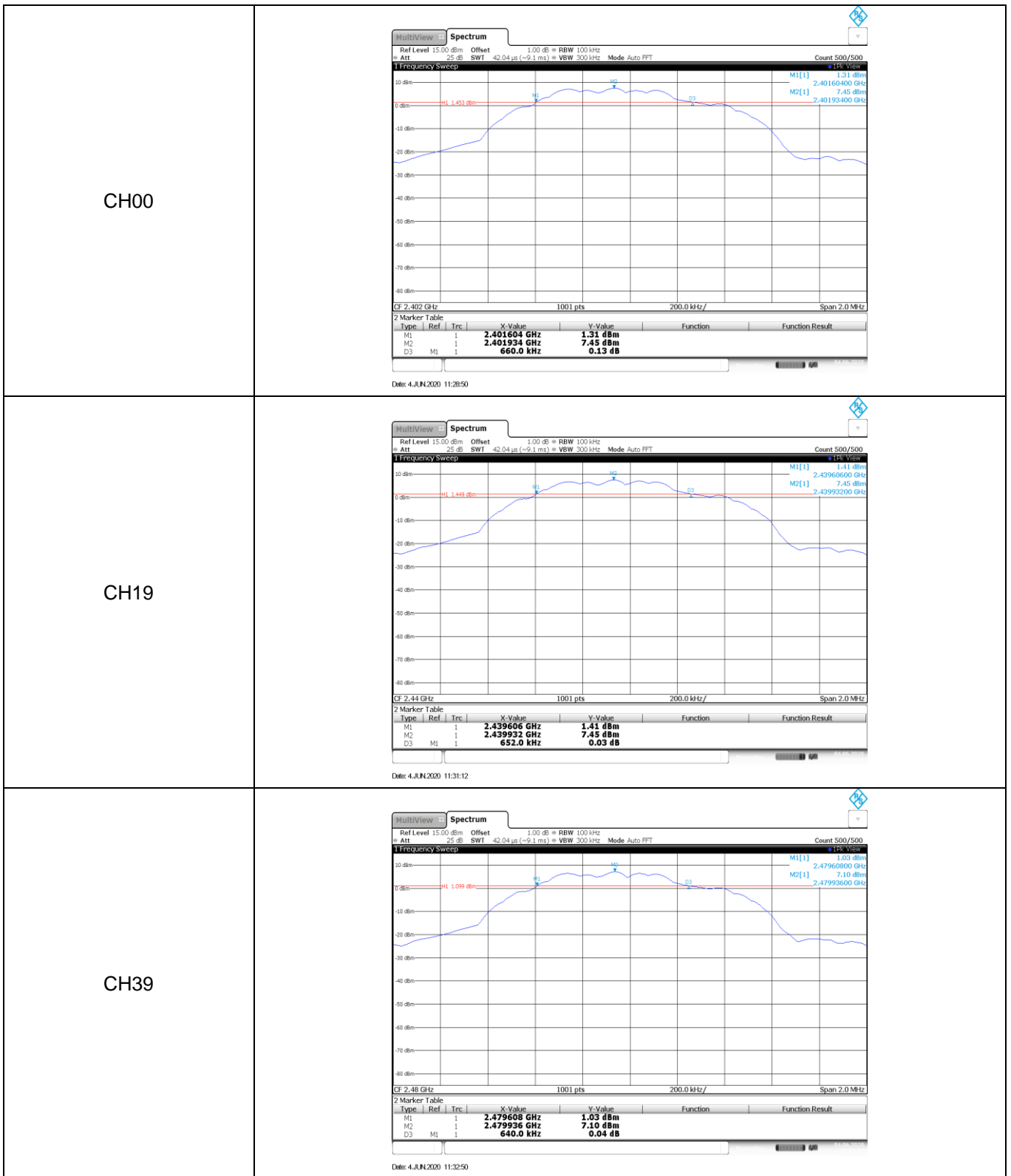
Appendix B: Power Spectral Density

Type	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
BT-BLE	00	-8.80	≤8.00	Pass
	19	-8.83		
	39	-9.35		

<p>CH00</p>	 <p>MultiView Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 3 kHz Att 20 dB SWI 1.4 ms (-0.2 ms) VBW 10 kHz Mode Auto FFT Count 100/100 1 Frequency Sweep M1[1] -30.80 dBm 2.401990000 GHz CF 2.402 GHz 1001 pts 100.0 kHz/pt Span 1.0 MHz Date: 4.JUN.2020 11:29:24</p>
<p>CH19</p>	 <p>MultiView Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 3 kHz Att 20 dB SWI 1.4 ms (-0.2 ms) VBW 10 kHz Mode Auto FFT Count 100/100 1 Frequency Sweep M1[1] -30.80 dBm 2.439976000 GHz CF 2.44 GHz 1001 pts 100.0 kHz/pt Span 1.0 MHz Date: 4.JUN.2020 11:31:45</p>
<p>CH39</p>	 <p>MultiView Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 3 kHz Att 20 dB SWI 1.4 ms (-0.2 ms) VBW 10 kHz Mode Auto FFT Count 100/100 1 Frequency Sweep M1[1] -30.80 dBm 2.479989000 GHz CF 2.48 GHz 1001 pts 100.0 kHz/pt Span 1.0 MHz Date: 4.JUN.2020 11:33:23</p>

Appendix C: 6dB bandwidth

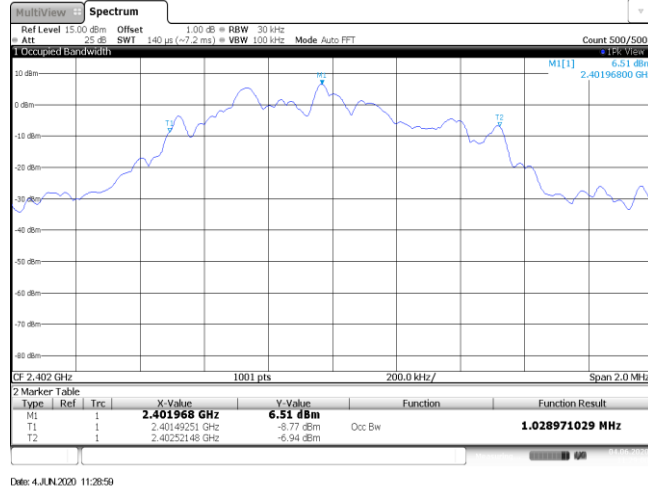
Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
BT-BLE	00	660.00	≥500	Pass
	19	652.00		
	39	640.00		



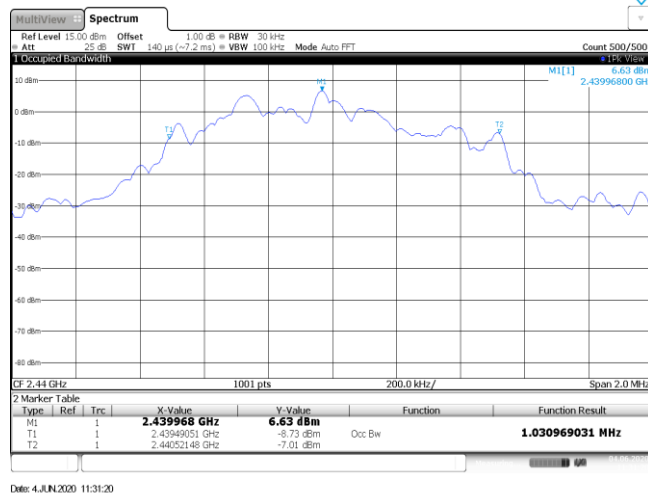
Appendix D: 99% Occupied Bandwidth

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

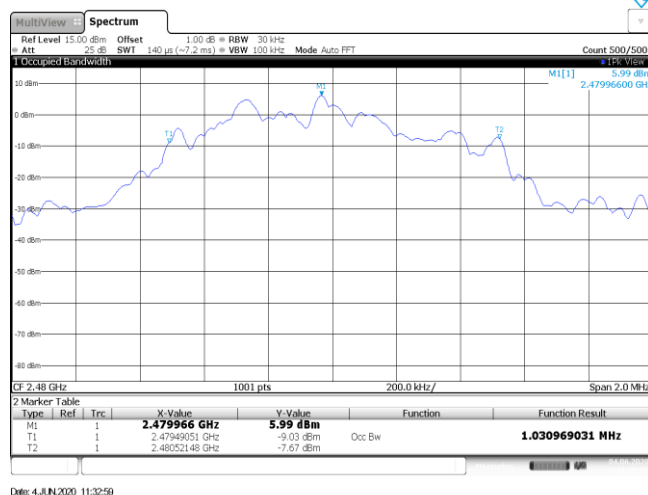
CH00



CH19

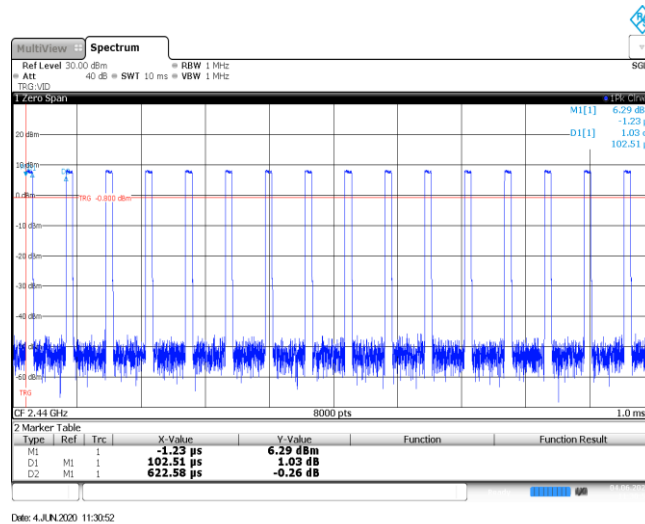


CH39

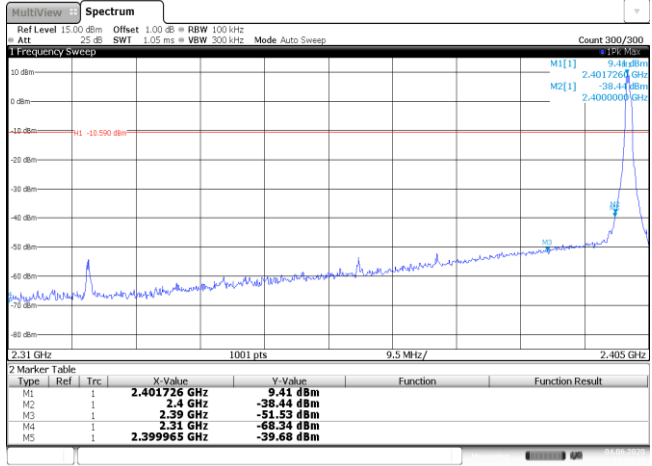
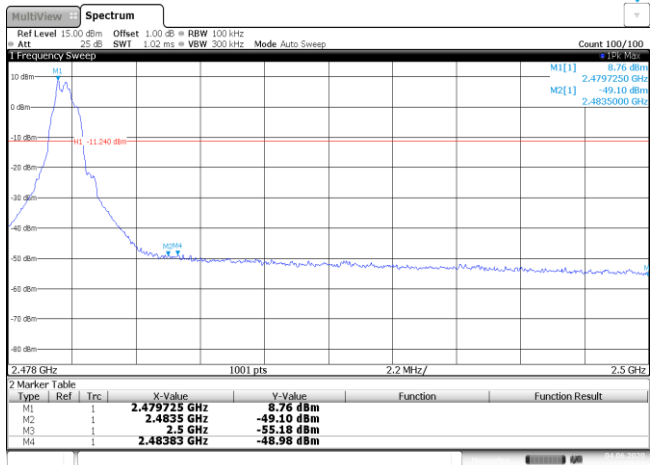


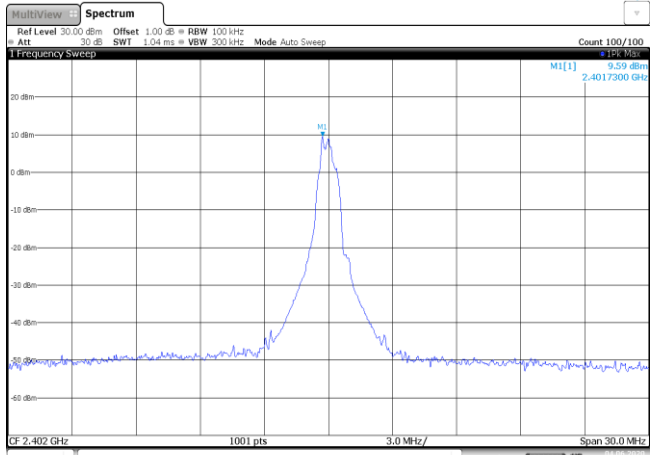
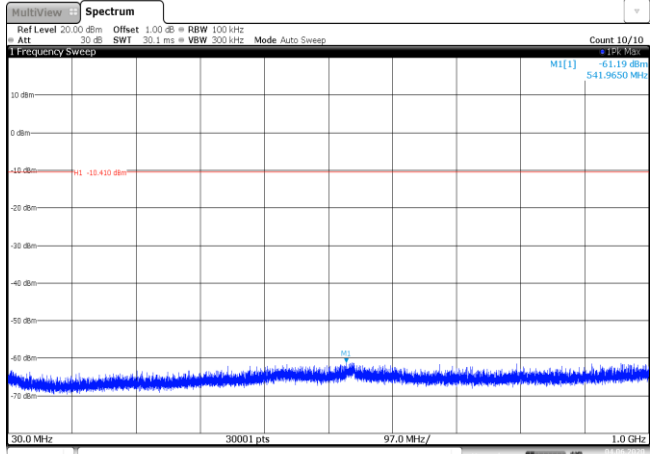
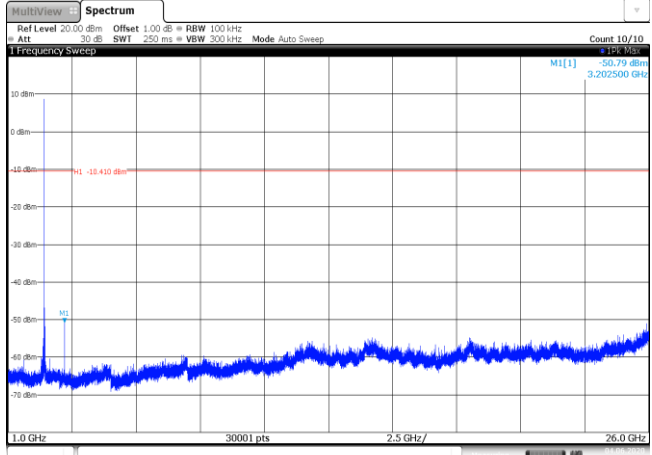
Appendix E: Duty cycle

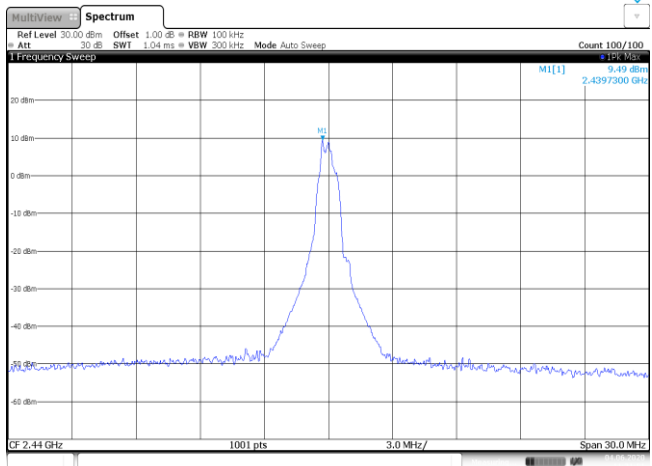
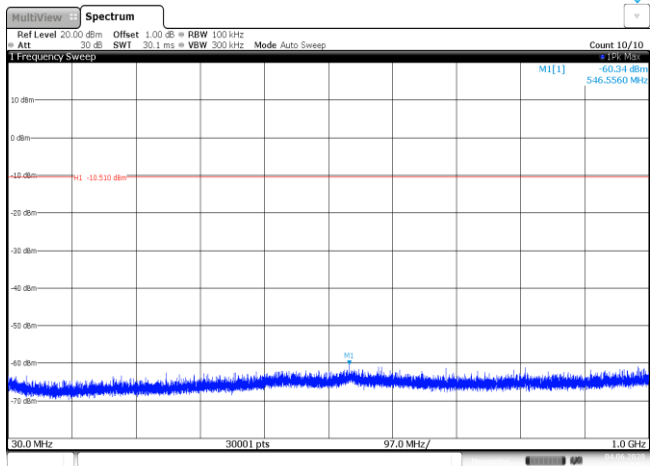
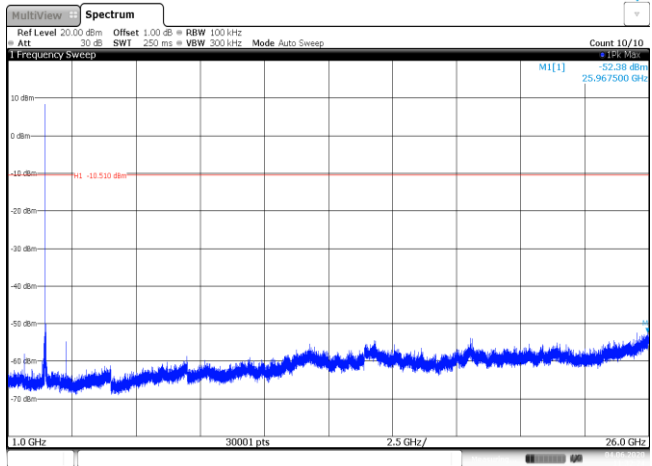
Test Frequency (MHz)	T _{on} time for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on} time (kHz)
2440	0.10	0.62	16.1%	10

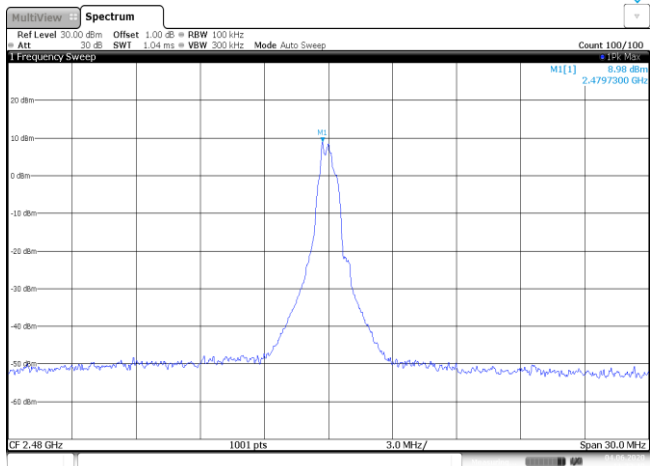
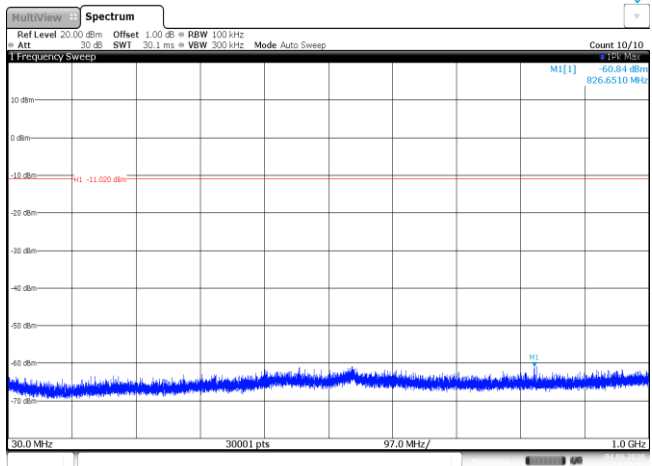
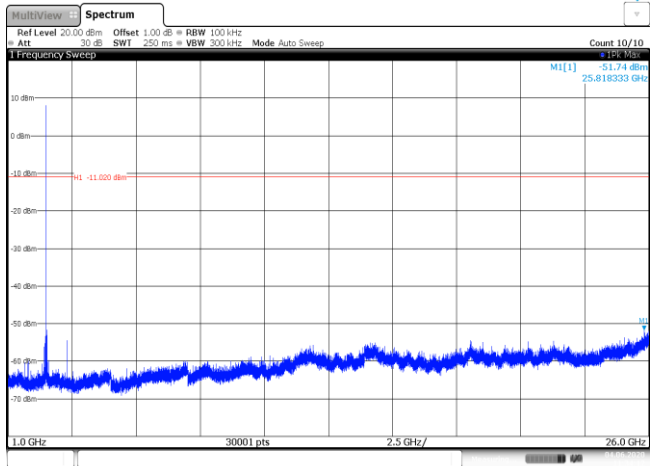


Appendix F: Band edge and Spurious Emissions (conducted)

Test Item:	Band edge																																										
<p style="text-align: center;">CH00</p>	 <p>2 Marker Table</p> <table border="1"> <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>2.401726 GHz</td> <td>9.41 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-38.44 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-51.53 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.391 GHz</td> <td>-68.34 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.399965 GHz</td> <td>-39.68 dBm</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 4 JUN 2020 11:29:34</p>	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.401726 GHz	9.41 dBm			M2	1		2.4 GHz	-38.44 dBm			M3	1		2.39 GHz	-51.53 dBm			M4	1		2.391 GHz	-68.34 dBm			M5	1		2.399965 GHz	-39.68 dBm		
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Test Item:	SE
<p>CH00 Reference level</p>	 <p>MultiView Spectrum 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 Frequency Sweep M1[1] -15.29 dBm 2.4017300 GHz CF 2.402 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 4 JUN 2020 11:28:42</p>
<p>CH00 30MHz~1000MHz</p>	 <p>MultiView Spectrum 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 Frequency Sweep M1[1] -61.19 dBm 541.9650 MHz M1 -18.410 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 4 JUN 2020 11:28:58</p>
<p>CH00 1GHz~26GHz</p>	 <p>MultiView Spectrum 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 Frequency Sweep M1[1] -50.79 dBm 3.202500 GHz M1 -18.410 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 4 JUN 2020 11:30:15</p>

<p>CH19 Reference level</p>	 <p>MultiView Spectrum 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 1 Frequency Sweep M1[1] 9.49 dBm 2.4397300 GHz CF 2.44 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 4.JUN.2020 11:31:51</p>
<p>CH19 30MHz~1000MHz</p>	 <p>MultiView Spectrum 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 1 Frequency Sweep M1[1] -18.510 dBm 546.5560 MHz 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 4.JUN.2020 11:32:07</p>
<p>CH19 1GHz~26GHz</p>	 <p>MultiView Spectrum 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 1 Frequency Sweep M1[1] -18.510 dBm 25.967500 GHz 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 4.JUN.2020 11:32:24</p>

<p>CH39 Reference level</p>	 <p>Date: 4 JUN 2020 11:33:40</p>
<p>CH39 30MHz~1000MHz</p>	 <p>Date: 4 JUN 2020 11:33:56</p>
<p>CH39 1GHz~26GHz</p>	 <p>Date: 4 JUN 2020 11:34:12</p>

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