

APPENDIX REPORT

Project No.	SHT2009005901EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT20090059017	Model No.	NOBU A55 PRO
Start test date	2020/9/7	Finish date	2020/9/7
Temperature	25°C	Humidity	50%
Test Engineer	Jiongsheng.Feng	Auditor	Xiaodong Zheo

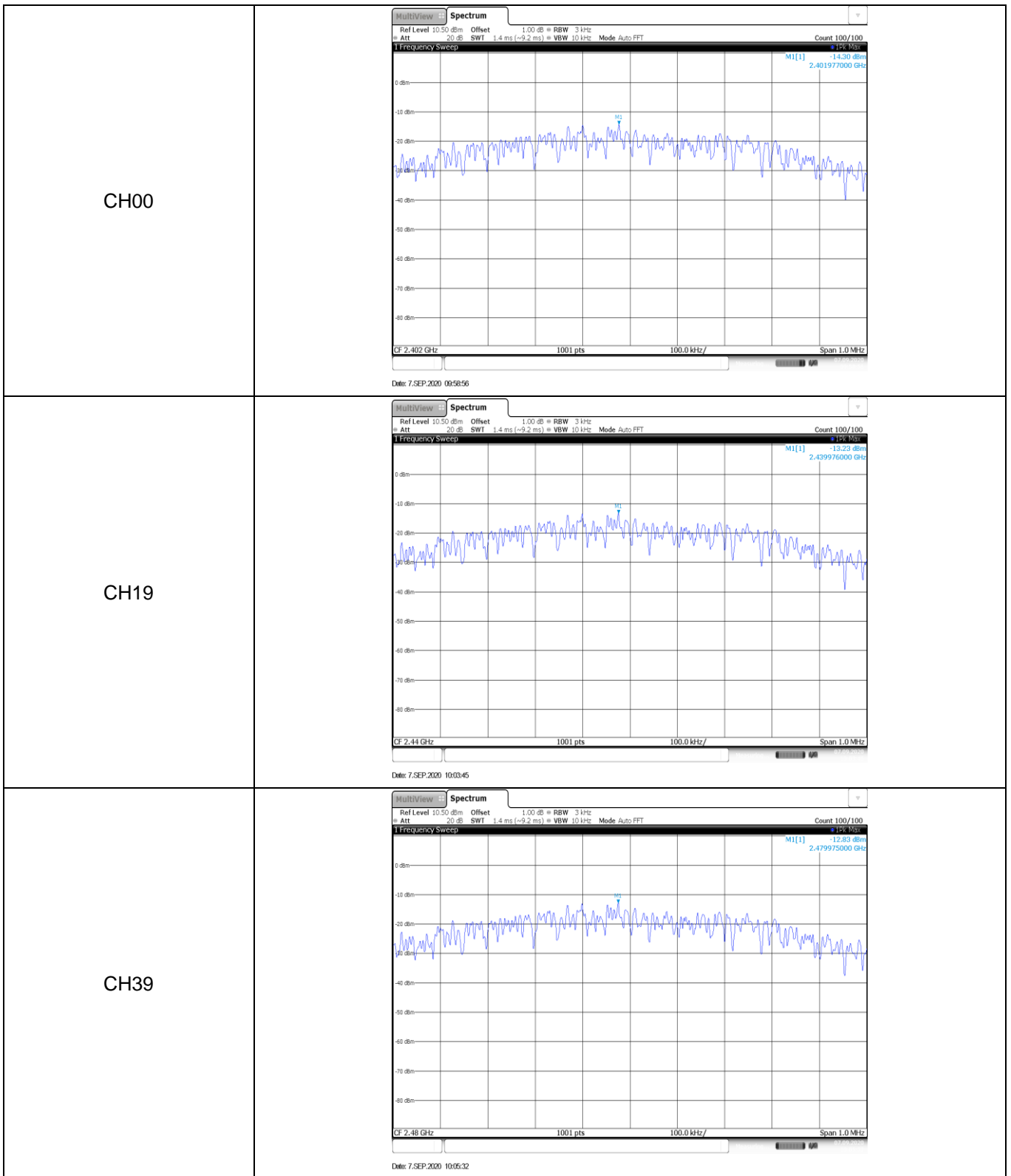
Appendix clause	Test item	Result
A	Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

Appendix A: Peak Output Power

Type	Channel	Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
BT-BLE	00	1.13	1.11	≤ 30.00	Pass
	19	2.13	2.12		
	39	2.63	2.60		

Appendix B: Power Spectral Density

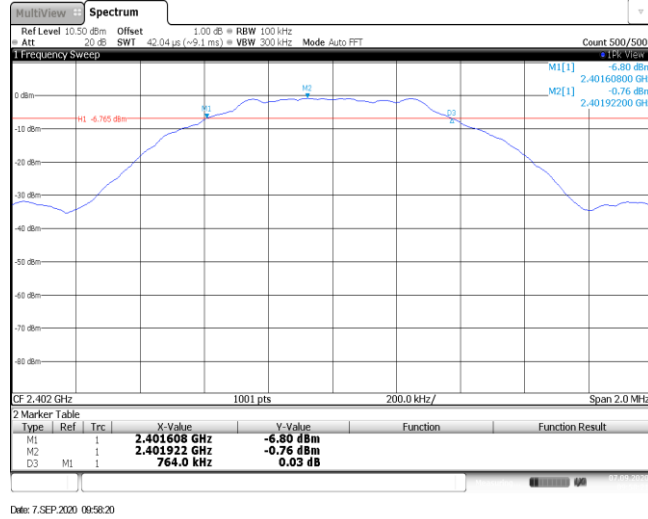
Type	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
BT-BLE	00	-14.30	≤8.00	Pass
	19	-13.23		
	39	-12.83		



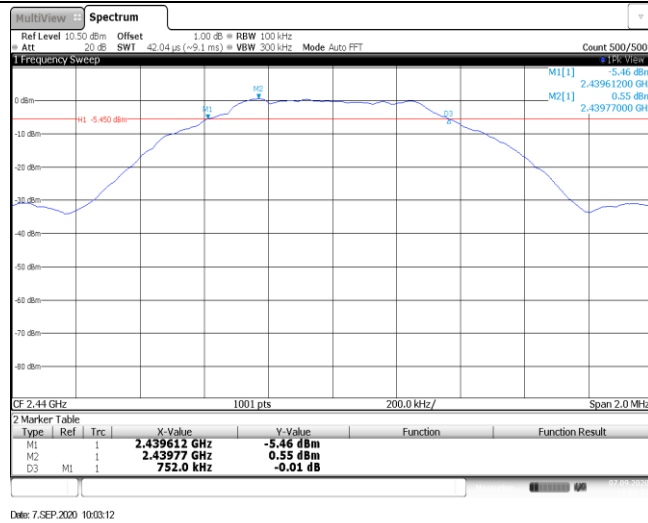
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
BT-BLE	00	764.00	≥500	Pass
	19	752.00		
	39	756.00		

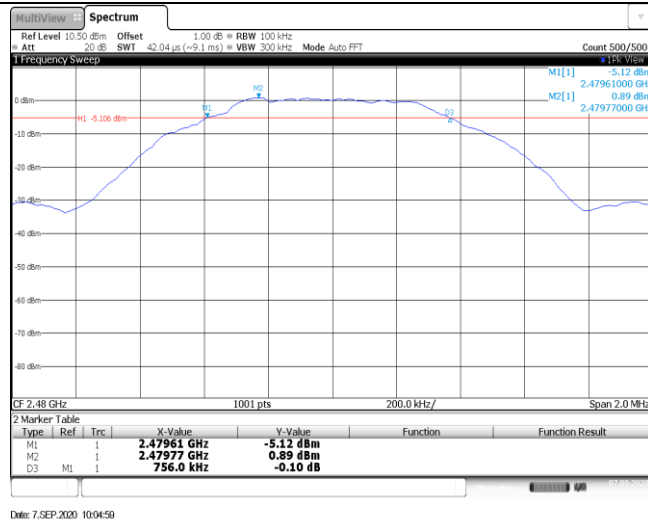
CH00



CH19



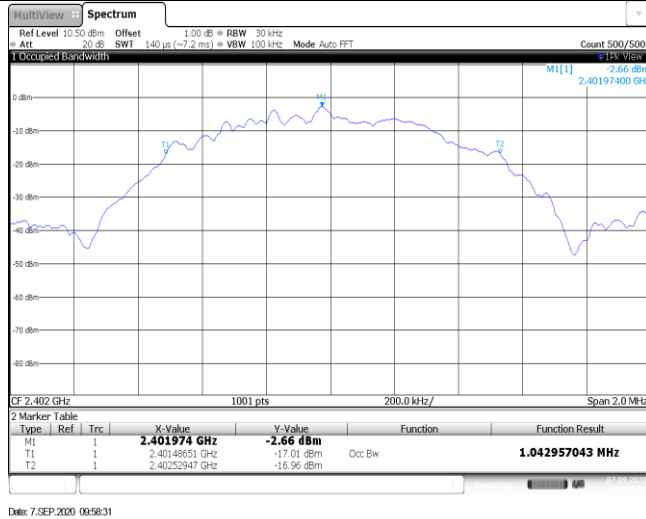
CH39



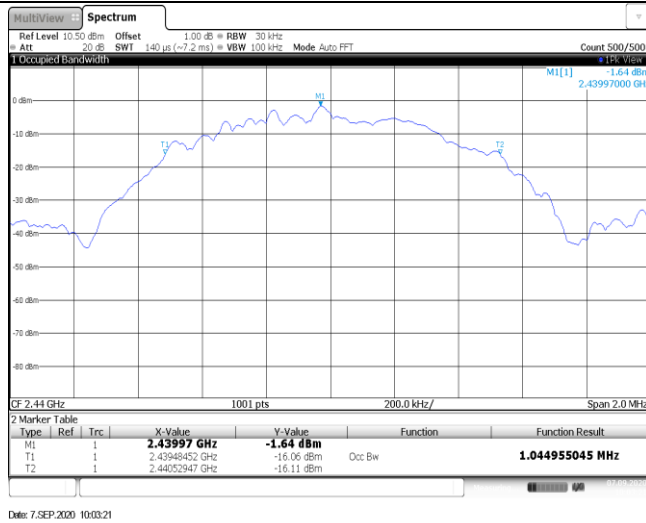
Appendix D: 99% Occupied Bandwidth

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

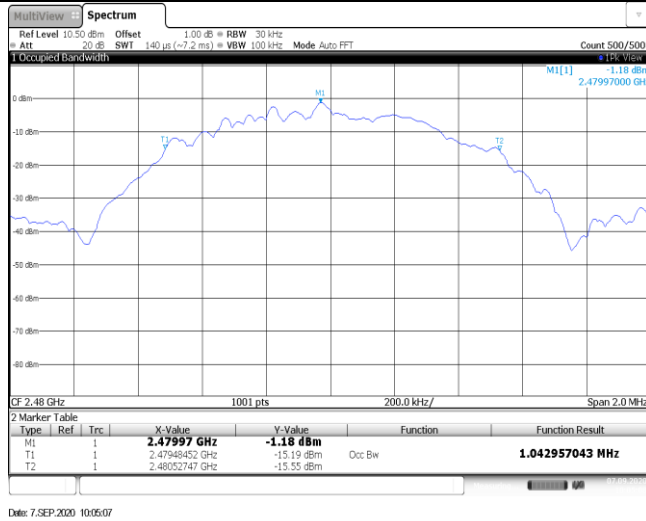
CH00



CH19

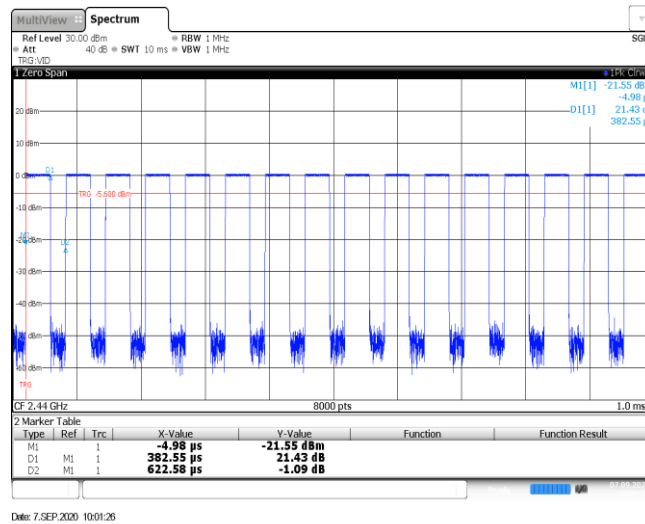


CH39

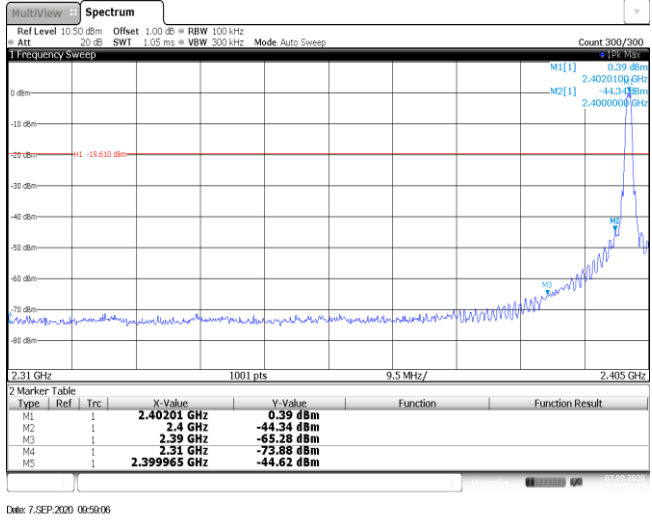
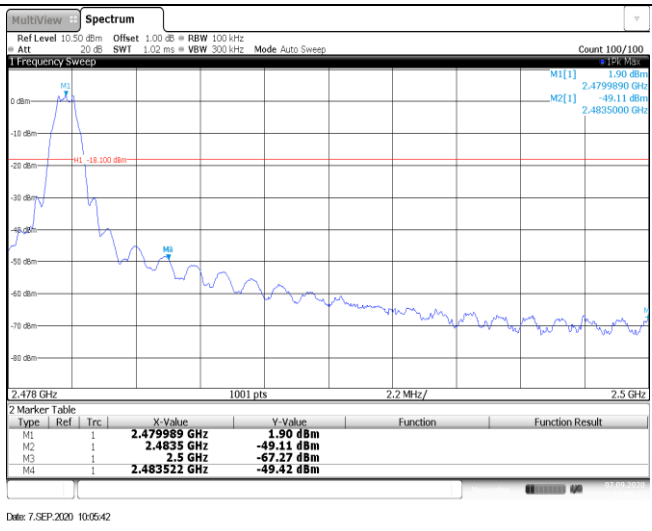


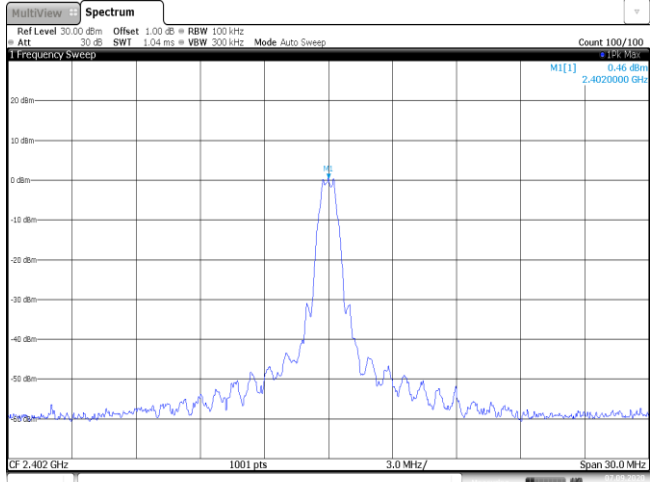
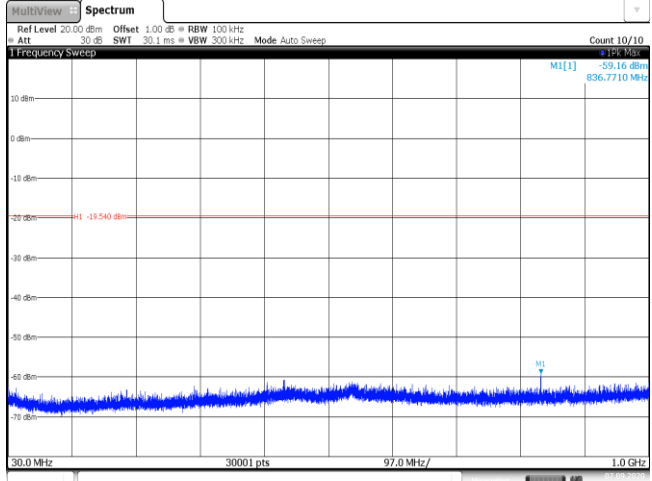
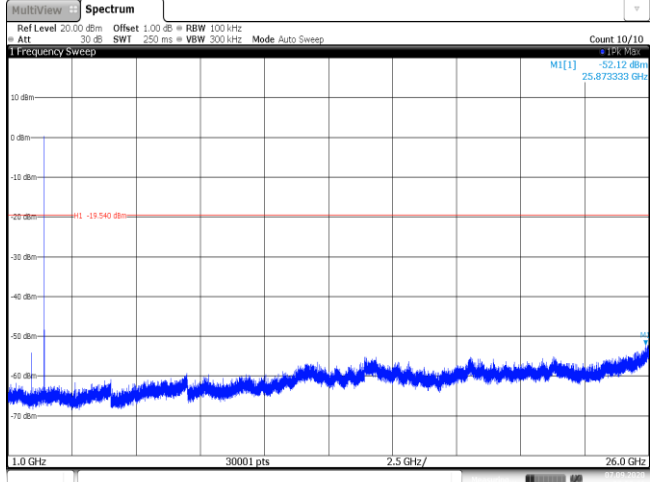
Appendix E: Duty cycle

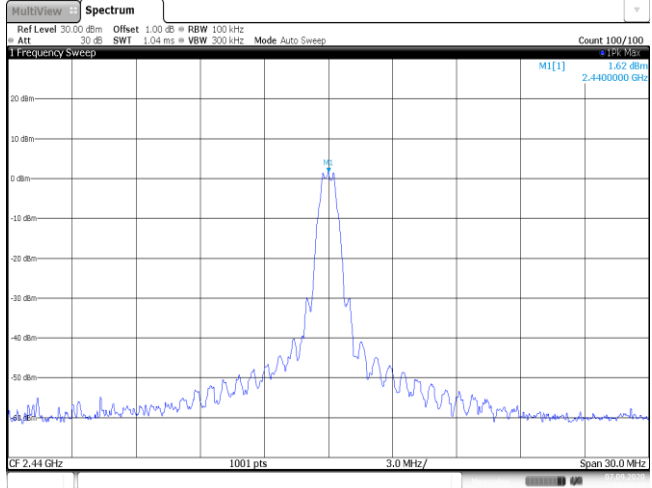
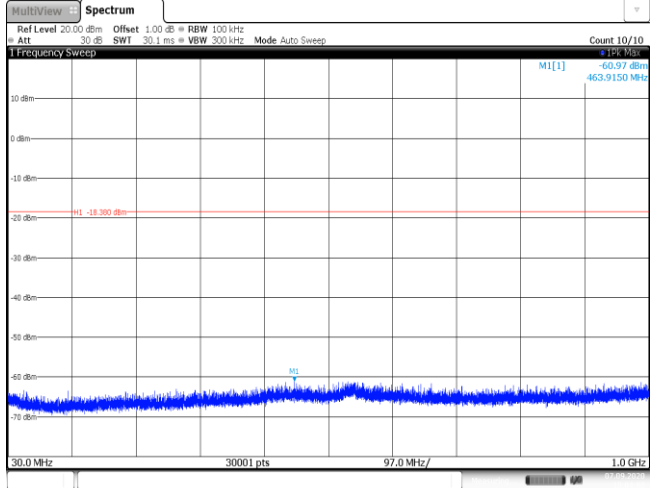
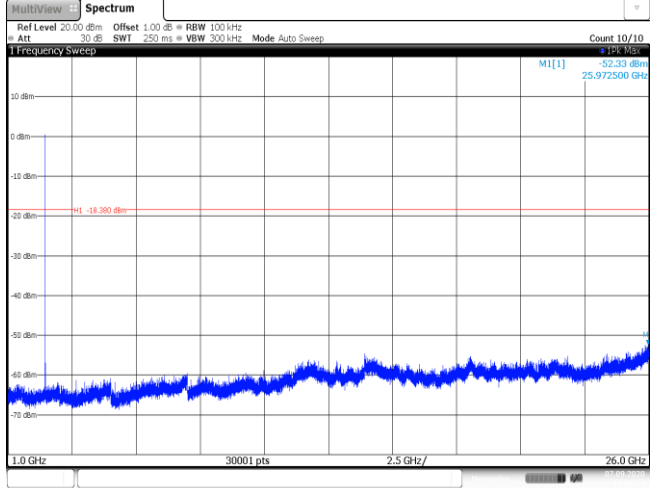
Test Frequency (MHz)	T _{on} time for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on} time (kHz)
2440	0.38	0.62	61.3%	2.6



Appendix F: Band edge and Spurious Emissions (conducted)

Test Item:	Band edge																																										
<p>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>2.40201 GHz</td> <td>0.39 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-44.34 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-65.28 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.31 GHz</td> <td>-73.88 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.399965 GHz</td> <td>-44.62 dBm</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 7.SEP.2020 09:59:06</p>	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.40201 GHz	0.39 dBm			M2	1		2.4 GHz	-44.34 dBm			M3	1		2.39 GHz	-65.28 dBm			M4	1		2.31 GHz	-73.88 dBm			M5	1		2.399965 GHz	-44.62 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 BW 100 kHz Att 30 dB SWI 1.04 ms VBW 300 kHz Mode Auto Sweep Count 100/100 1 Frequency Sweep MI[1] 0.46 dBm 2.4020000 GHz 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -80 dBm CF 2.402 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 7.SEP.2020 09:59:14</p>
<p>CH00 30MHz~1000MHz</p>	 <p>MultiView Spectrum 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 1 Frequency Sweep MI[1] -59.16 dBm 836.7710 MHz -20 dBm -10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -80 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 7.SEP.2020 09:59:30</p>
<p>CH00 1GHz~26GHz</p>	 <p>MultiView Spectrum 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 1 Frequency Sweep MI[1] -52.12 dBm 25.875533 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm -80 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 7.SEP.2020 09:59:46</p>

<p>CH19 Reference level</p>	 <p>MultiView Spectrum 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 1 Frequency Sweep M1[1] 1.62 dBm 2.4400000 GHz CF 2.44 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 7.SEP.2020 10:03:52</p>
<p>CH19 30MHz~1000MHz</p>	 <p>MultiView Spectrum 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 1 Frequency Sweep M1[1] -60.97 dBm 463.9150 MHz M1 -18.980 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 7.SEP.2020 10:04:08</p>
<p>CH19 1GHz~26GHz</p>	 <p>MultiView Spectrum 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 1 Frequency Sweep M1[1] -52.33 dBm 25.972500 GHz M1 -18.980 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 7.SEP.2020 10:04:24</p>

<p>CH39 Reference level</p>	<p>MultiView Spectrum 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 1 Frequency Sweep M1[1] 2.04 dBm 2.480000 GHz CF 2.48 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 7.SEP.2020 10:05:49</p>
<p>CH39 30MHz~1000MHz</p>	<p>MultiView Spectrum 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 1 Frequency Sweep M1[1] -60.38 dBm 438.5020 MHz M1 -17.960 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 7.SEP.2020 10:06:05</p>
<p>CH39 1GHz~26GHz</p>	<p>MultiView Spectrum 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 1 Frequency Sweep M1[1] -44.27 dBm 1.890000 GHz M1 -17.960 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 7.SEP.2020 10:06:21</p>

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