

APPENDIX REPORT

Project No.	SHT1912068505EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT19120685043	Model No.	iData 50
Start test date	2019/12/31	Finish date	2019/12/31
Temperature	25°C	Humidity	50%
Test Engineer	Ximing Huang	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	Duty cycle	PASS
E	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	-4.54	-4.56	≤30.00	Pass
	19	-4.96	-4.98		
	39	-4.77	-4.81		

Appendix B: Power Spectral Density

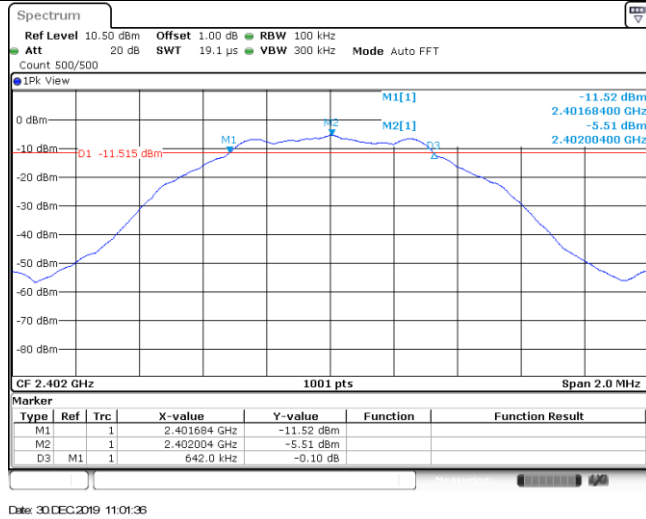
Type	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
BT-BLE	00	-19.37	≤8.00	Pass
	19	-19.85		
	39	-19.45		

<p>CH00</p>	<p>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] -19.37 dBm 2.40198410 GHz CF 2.402 GHz 691 pts Span 1.0 MHz Date: 30 DEC 2019 11:02:26</p>
<p>CH19</p>	<p>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] -19.85 dBm 2.43998410 GHz CF 2.44 GHz 691 pts Span 1.0 MHz Date: 30 DEC 2019 11:04:17</p>
<p>CH39</p>	<p>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] -19.45 dBm 2.47998410 GHz CF 2.48 GHz 691 pts Span 1.0 MHz Date: 30 DEC 2019 11:05:10</p>

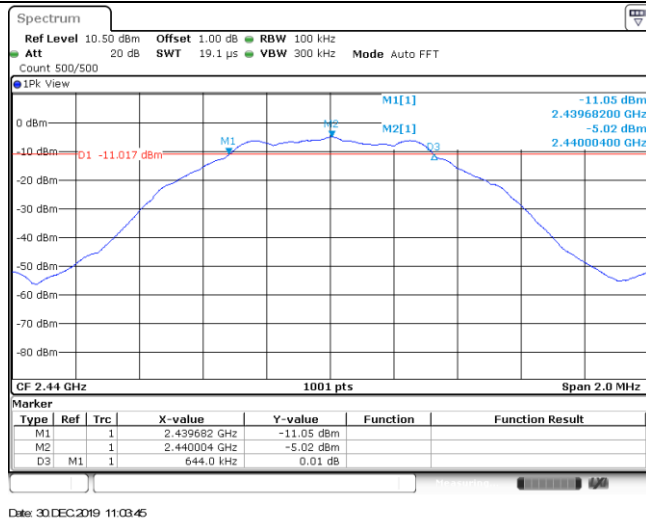
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
BT-BLE	00	642.00	≥500	Pass
	19	644.00		
	39	646.00		

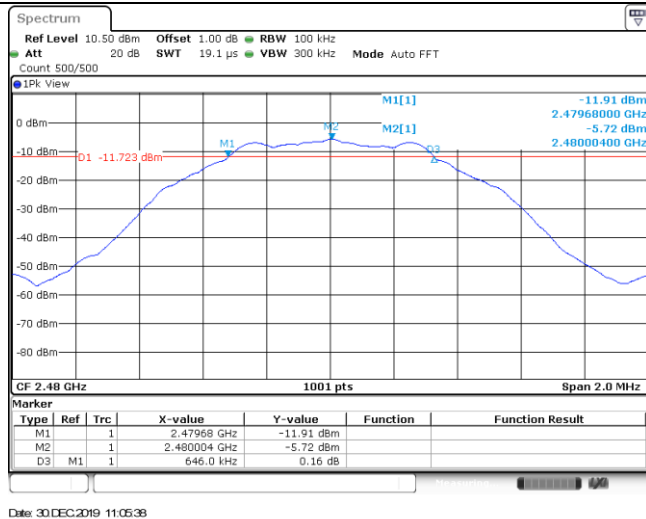
CH00



CH19

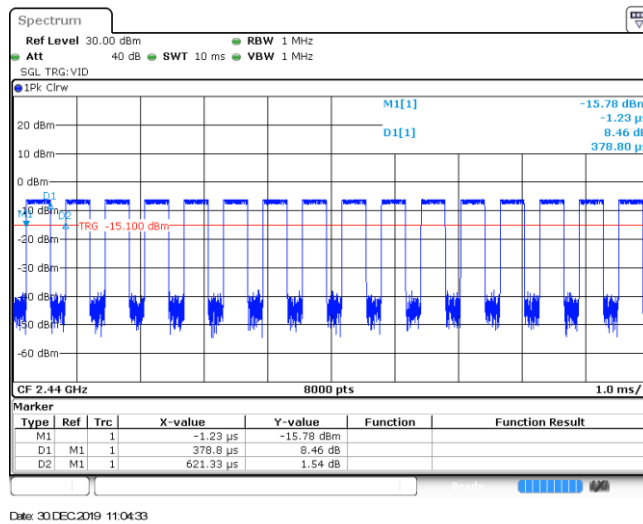


CH39

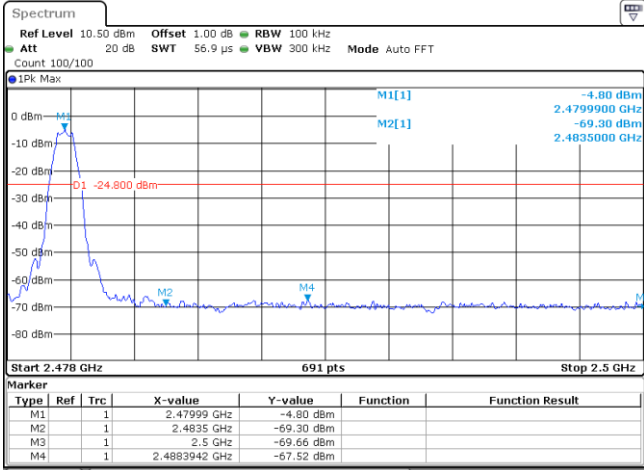


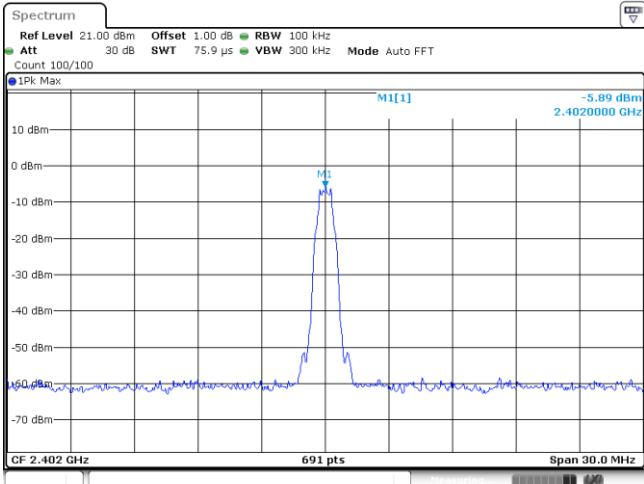
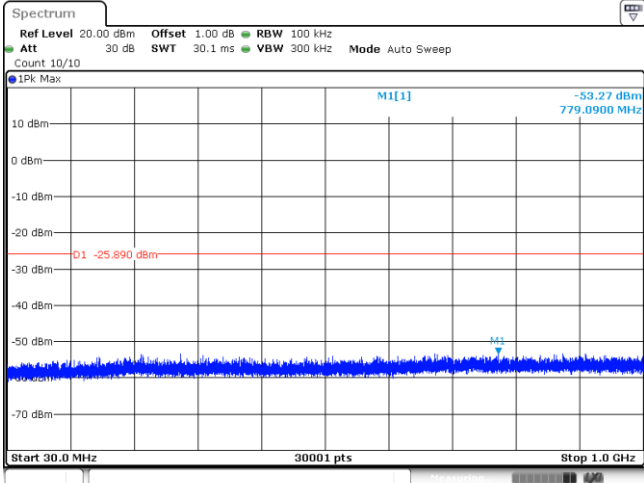
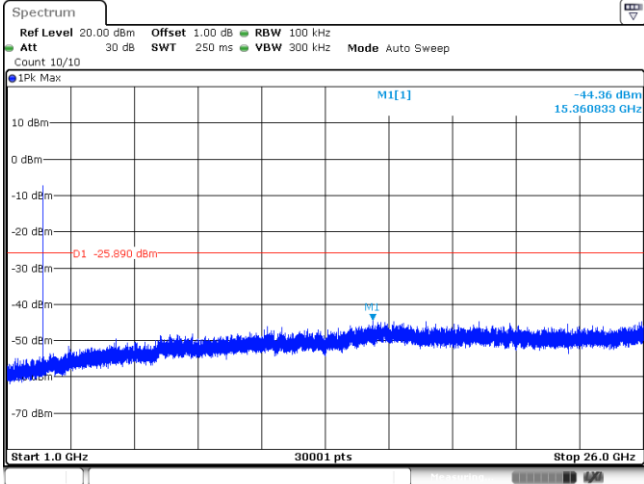
Appendix D: Duty cycle

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

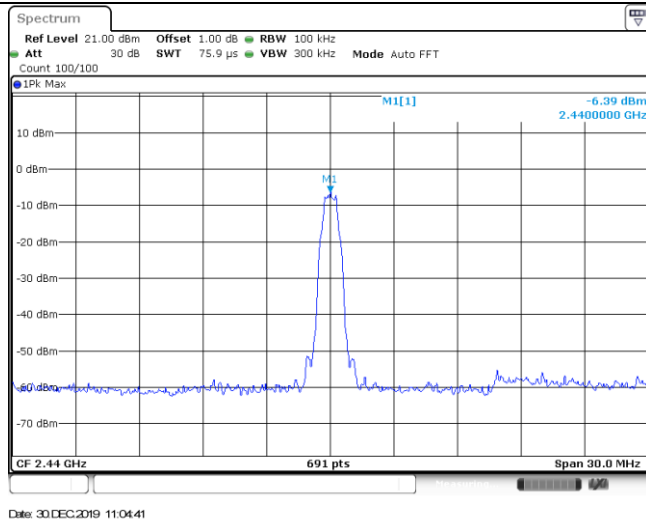


Appendix E: Band edge and Spurious Emissions (conducted)

Test Item:	Band edge																																										
<p style="text-align: center;">CH00</p>	 <p>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>2.40204 GHz</td> <td>-5.13 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-64.31 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-66.50 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.31 GHz</td> <td>-64.94 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.347036 GHz</td> <td>-63.62 dBm</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 30 DEC 2019 11:02:36</p>	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.40204 GHz	-5.13 dBm			M2	1		2.4 GHz	-64.31 dBm			M3	1		2.39 GHz	-66.50 dBm			M4	1		2.31 GHz	-64.94 dBm			M5	1		2.347036 GHz	-63.62 dBm		
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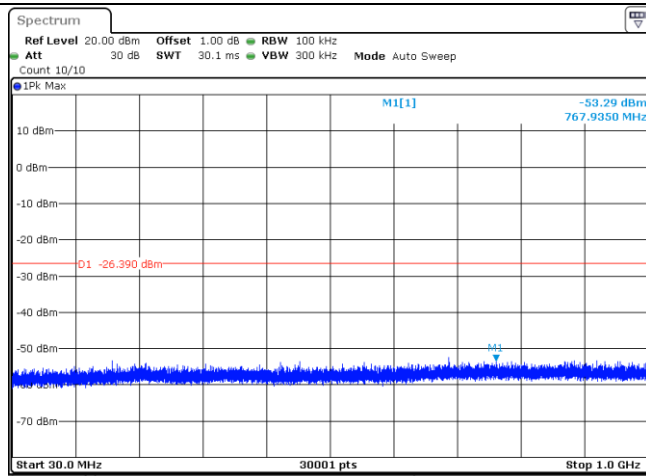
Test Item:	SE
<p>CH00 Reference level</p>	 <p>Spectrum</p> <p>Ref Level 21.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 75.9 μs VBW 300 kHz Mode Auto FFT Count 100/100</p> <p>1Pk Max</p> <p>M1[1] -5.89 dBm 2.402000 GHz</p> <p>CF 2.402 GHz 691 pts Span 30.0 MHz</p> <p>Date: 30 DEC 2019 11:02:44</p>
<p>CH00 30MHz~1000MHz</p>	 <p>Spectrum</p> <p>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</p> <p>1Pk Max</p> <p>M1[1] -53.27 dBm 779.0900 MHz</p> <p>D1 -25.890 dBm</p> <p>Start 30.0 MHz 30001 pts Stop 1.0 GHz</p> <p>Date: 30 DEC 2019 11:03:00</p>
<p>CH00 1GHz~26GHz</p>	 <p>Spectrum</p> <p>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</p> <p>1Pk Max</p> <p>M1[1] -44.36 dBm 15.360833 GHz</p> <p>D1 -25.890 dBm</p> <p>Start 1.0 GHz 30001 pts Stop 26.0 GHz</p> <p>Date: 30 DEC 2019 11:03:16</p>

CH19
Reference level



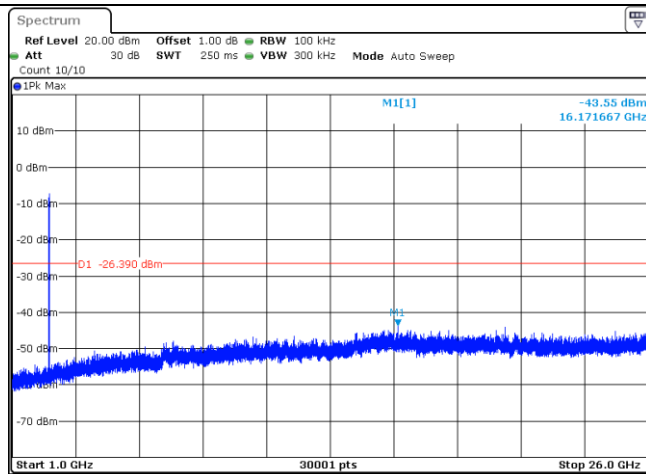
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CH19
30MHz~1000MHz



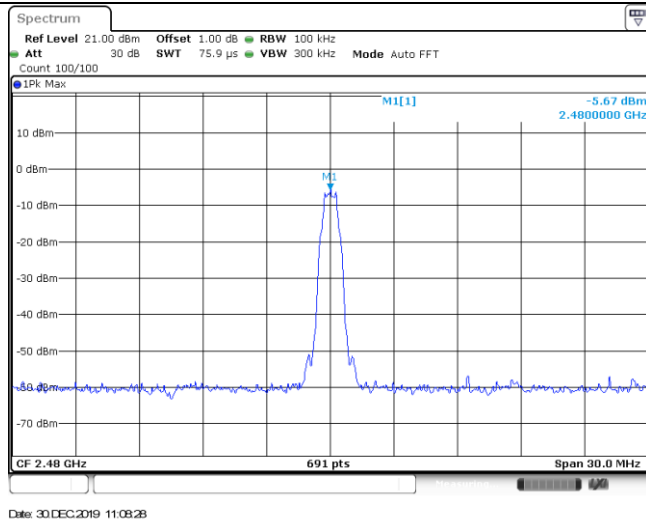
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CH19
1GHz~26GHz

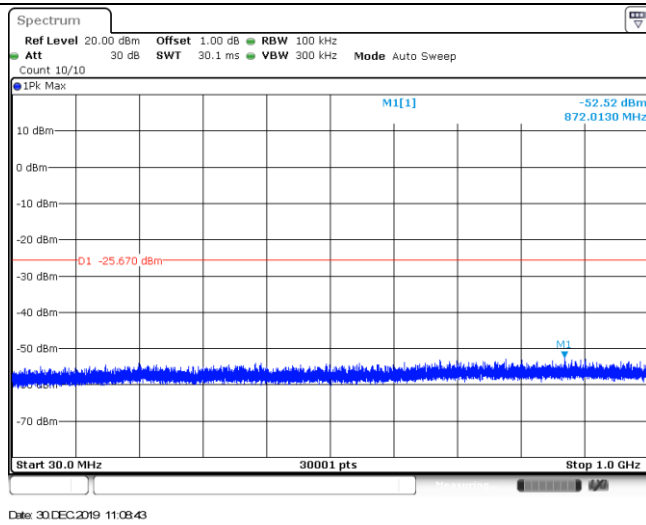


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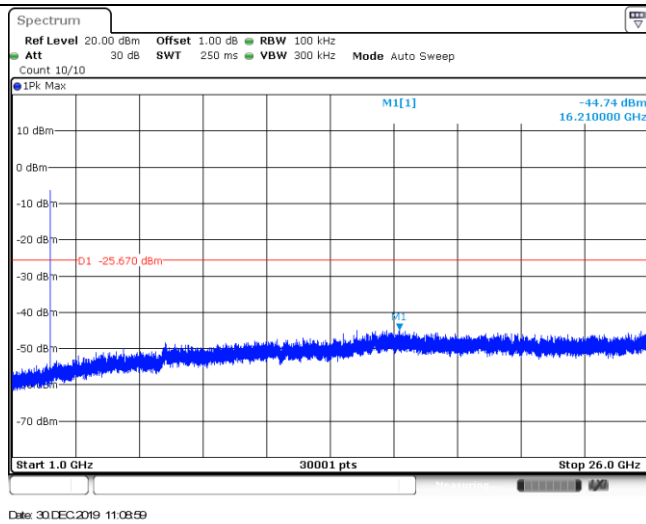
CH39
Reference level



CH39
30MHz~1000MHz



CH39
1GHz~26GHz



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