

APPENDIX REPORT

Project No.	SHT2005116804EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT20051168010	Model No.	CT9E78Q22N
Start test date	2020/5/28	Finish date	2020/6/4
Temperature	25°C	Humidity	50%
Test Engineer	Jess He	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

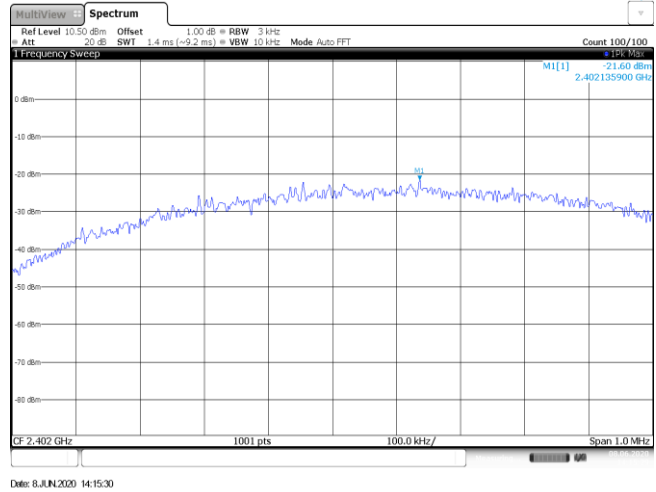
Appendix A: Peak Output Power

Type	Channel	Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
BT-BLE	00	-5.89	-5.93	≤30.00	Pass
	19	-6.00	-6.08		
	39	-5.76	-5.81		

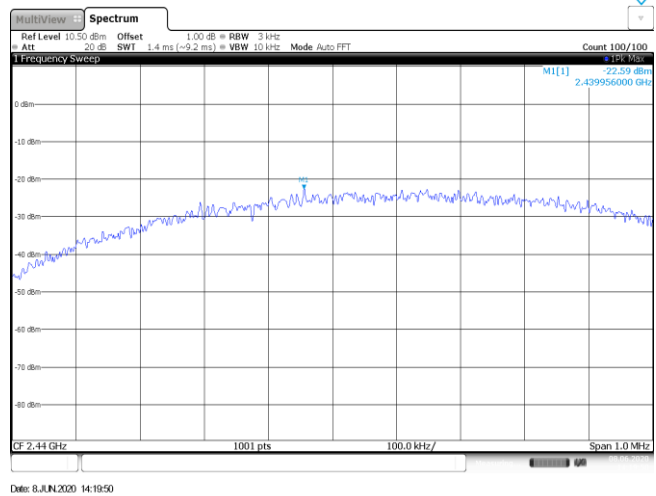
Appendix B: Power Spectral Density

Type	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
BT-BLE	00	-21.60	≤8.00	Pass
	19	-22.59		
	39	-22.40		

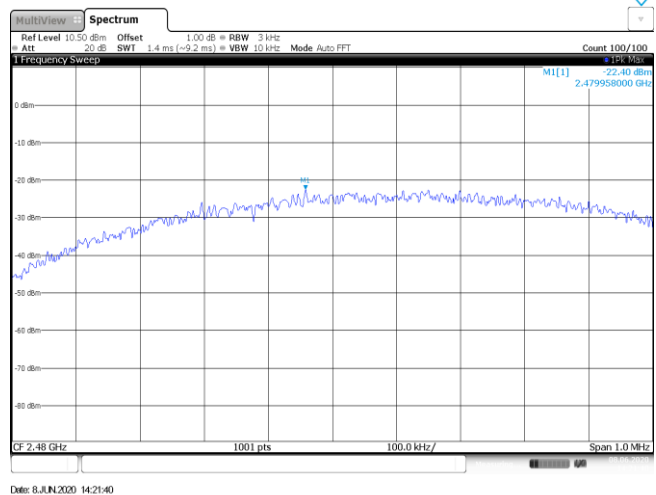
CH00



CH19



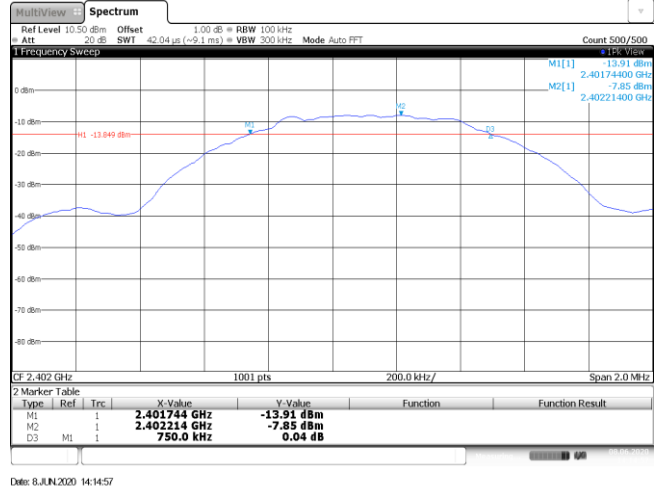
CH39



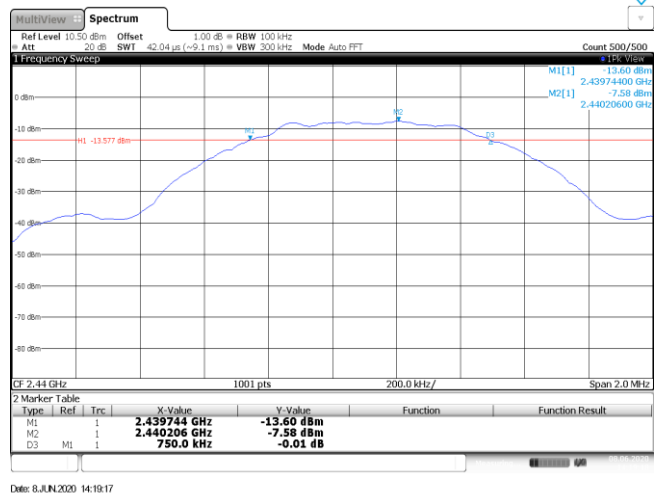
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
BT-BLE	00	750.00	≥500	Pass
	19	750.00		
	39	754.00		

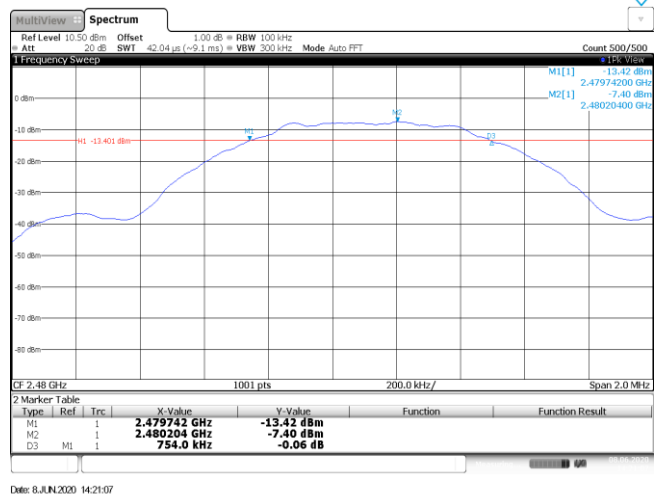
CH00



CH19



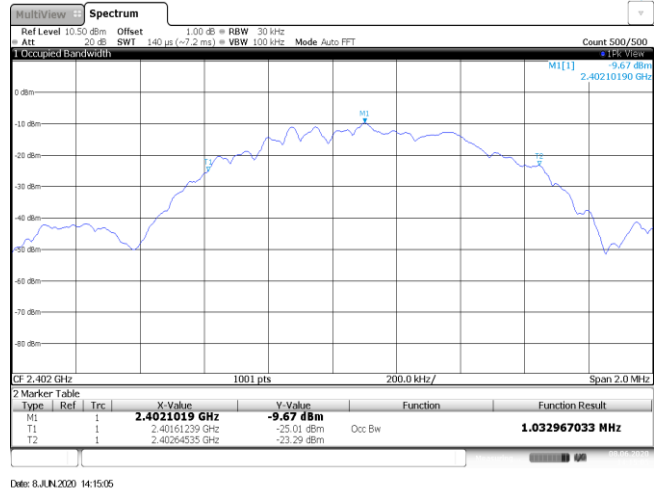
CH39



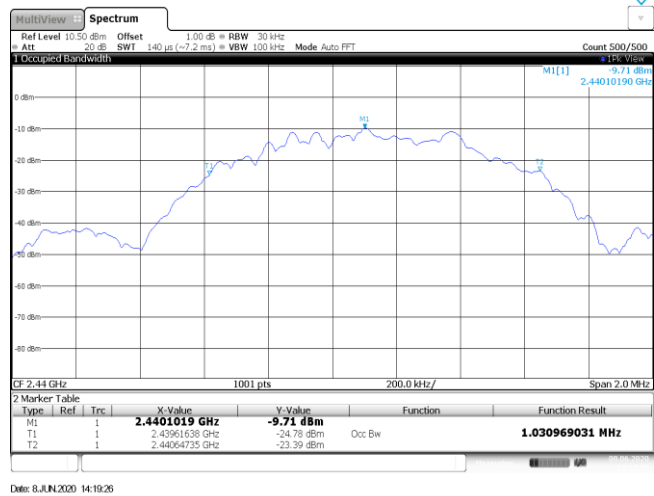
Appendix D: 99% Occupied Bandwidth

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

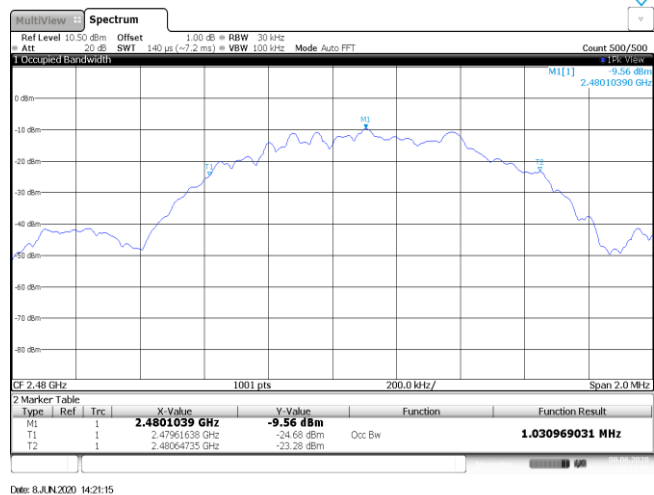
CH00



CH19

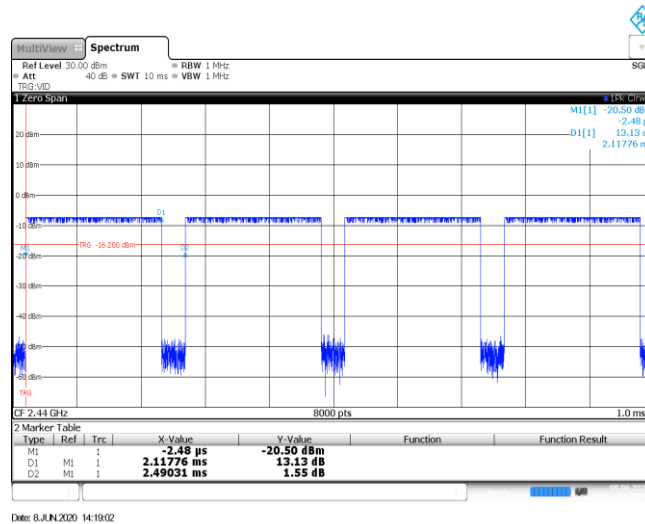


CH39

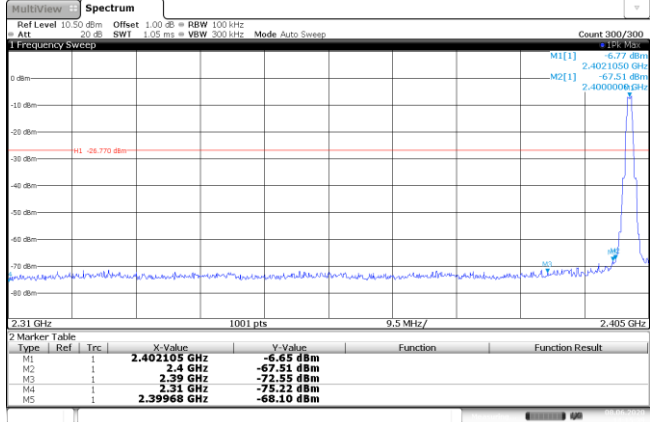
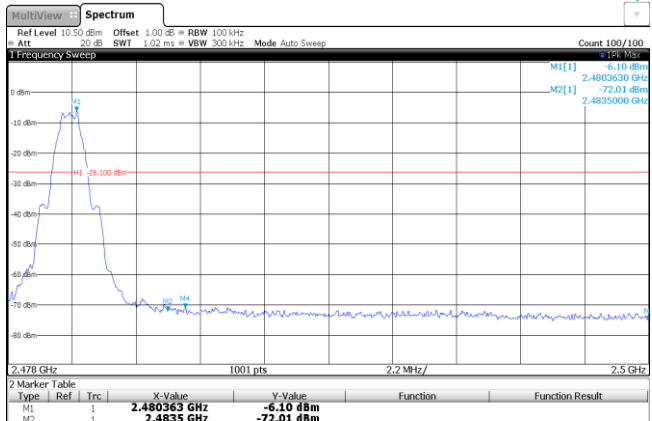


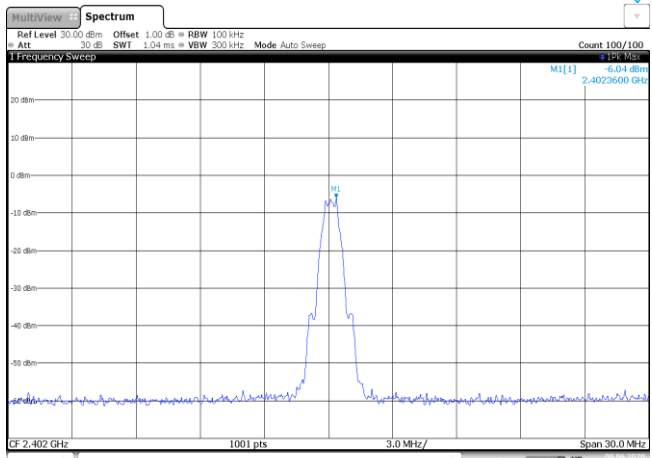
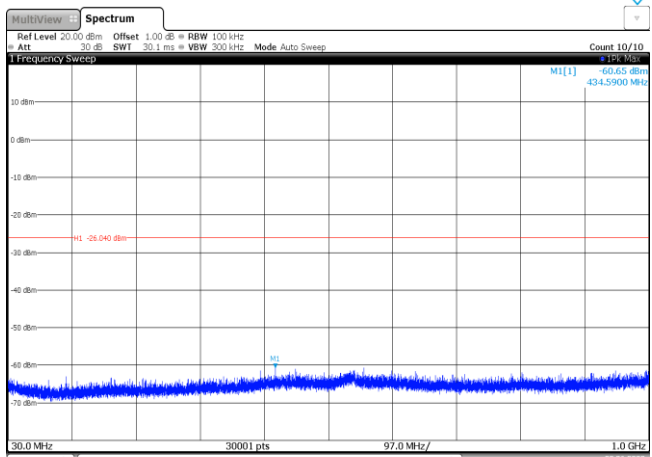
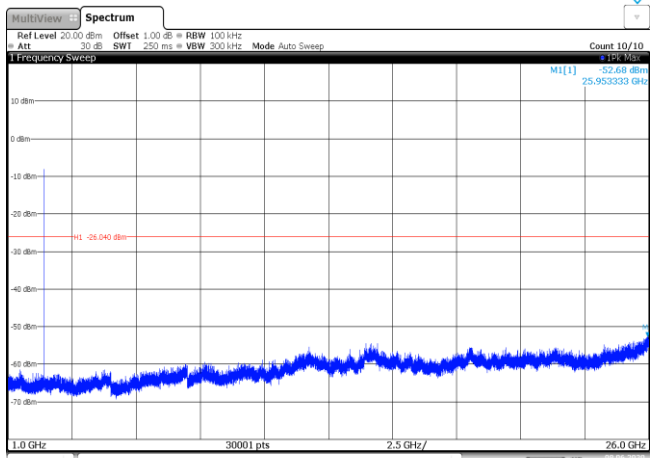
Appendix E: Duty cycle

Test Frequency (MHz)	T _{on} time for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on} time (kHz)
2440	2.12	2.49	85.1%	0.5

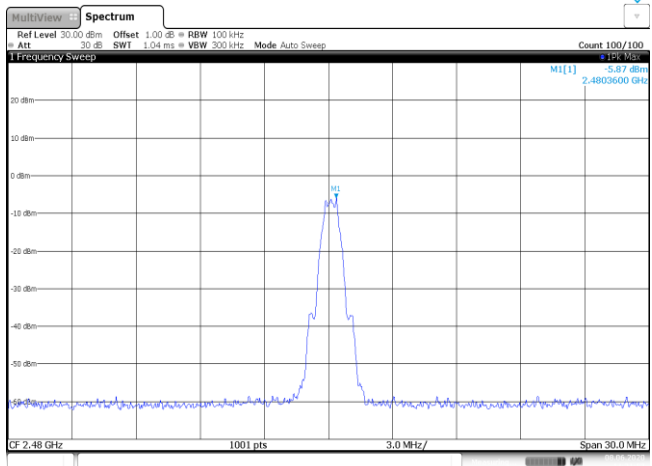
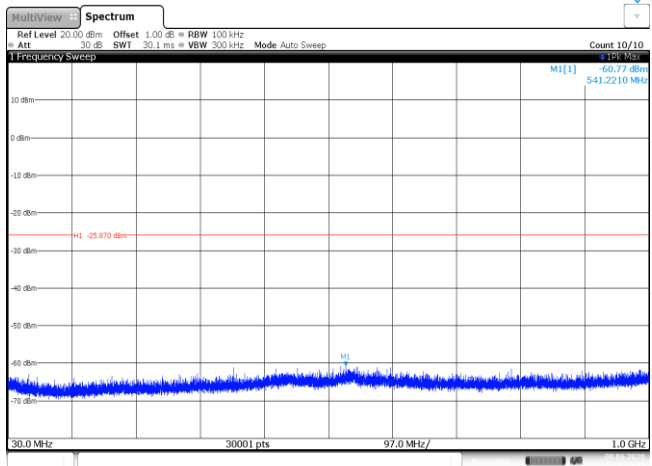
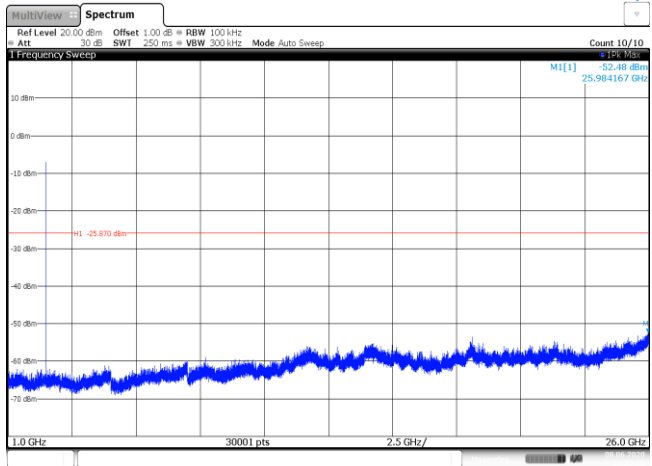


Appendix F: Band edge and Spurious Emissions (conducted)

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>2.402105 GHz</td> <td>-6.65 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-67.51 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-72.55 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.31 GHz</td> <td>-75.22 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.39968 GHz</td> <td>-68.10 dBm</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 8 JUN 2020 14:15:40</p>	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.402105 GHz	-6.65 dBm			M2	1		2.4 GHz	-67.51 dBm			M3	1		2.39 GHz	-72.55 dBm			M4	1		2.31 GHz	-75.22 dBm			M5	1		2.39968 GHz	-68.10 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 Swcnp M1[1] -2.01 dBm 2.402960 GHz CF 2.402 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8.JUN.2020 14:15:46</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 Swcnp M1[1] -69.65 dBm 434.5900 MHz M1 -25.040 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 8.JUN.2020 14:16:02</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 Swcnp M1[1] -52.68 dBm 25.953333 GHz M1 -25.040 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 8.JUN.2020 14:16:19</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 Frequency Sweep M1[1] -5.97 dBm 2.4403600 GHz CF 2.44 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8.JUN.2020 14:19:57</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 Frequency Sweep M1[1] -60.54 dBm 551.2770 MHz M1 -25.970 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 8.JUN.2020 14:20:13</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 Frequency Sweep M1[1] -61.77 dBm 25.946667 GHz M1 -25.970 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 8.JUN.2020 14:20:29</p>

<p>CH39 Reference level</p>	 <p>Date: 8.JUN.2020 14:21:57</p>
<p>CH39 30MHz~1000MHz</p>	 <p>Date: 8.JUN.2020 14:22:13</p>
<p>CH39 1GHz~26GHz</p>	 <p>Date: 8.JUN.2020 14:22:29</p>

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