

APPENDIX REPORT

Project No.	SHT2005087301EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT20050873001	Model No.	SC201
Start test date	2020/6/2	Finish date	2020/6/2
Temperature	25°C	Humidity	50%
Test Engineer	JiongSheng.Feng	Auditor	<i>William.wang</i>

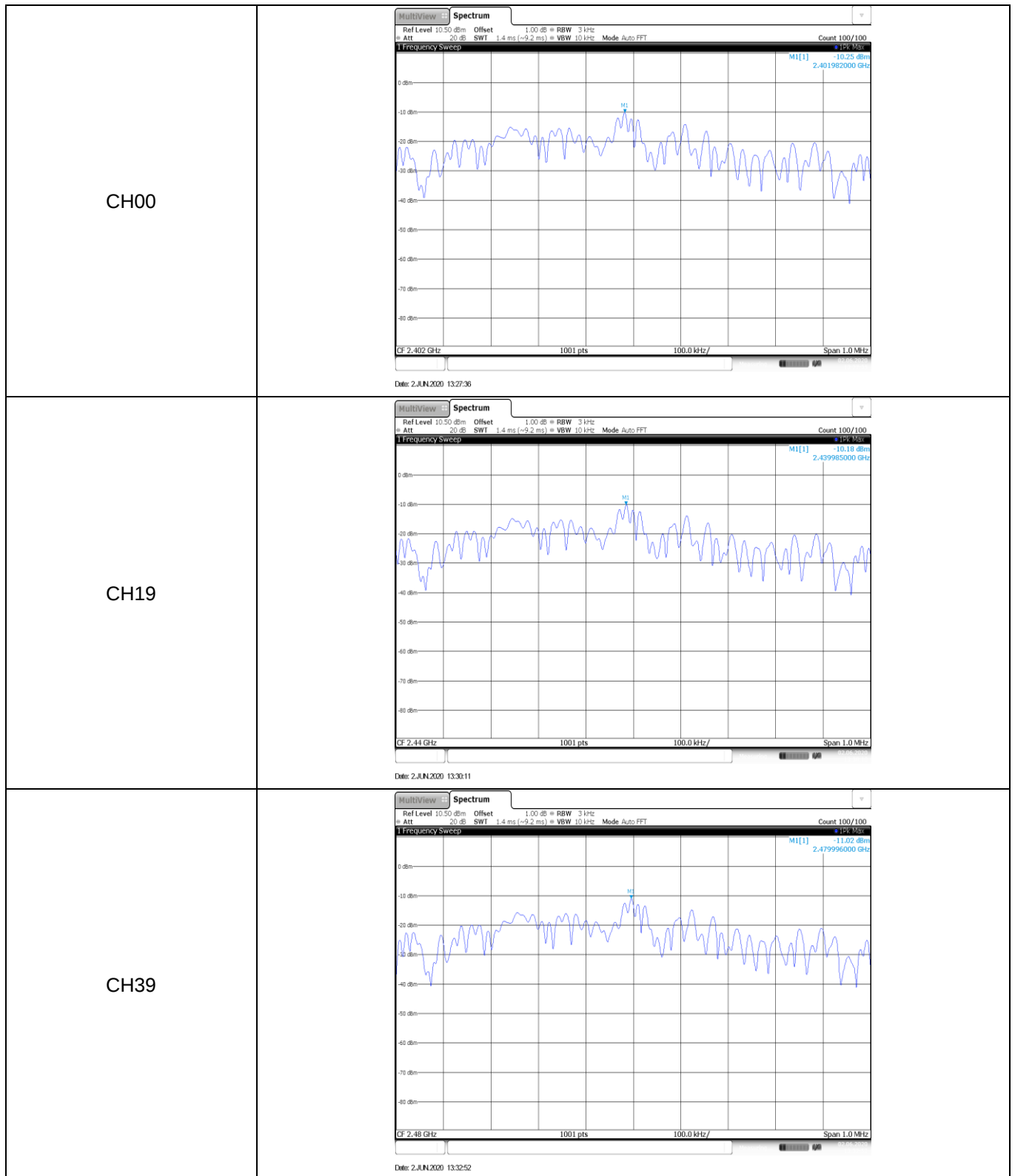
Appendix clause	Test item	Result
A	Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

Appendix A: Peak Output Power

Type	Channel	Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
BT-BLE	00	6.72	6.70	≤30.00	Pass
	19	6.82	6.81		
	39	6.09	6.07		

Appendix B: Power Spectral Density

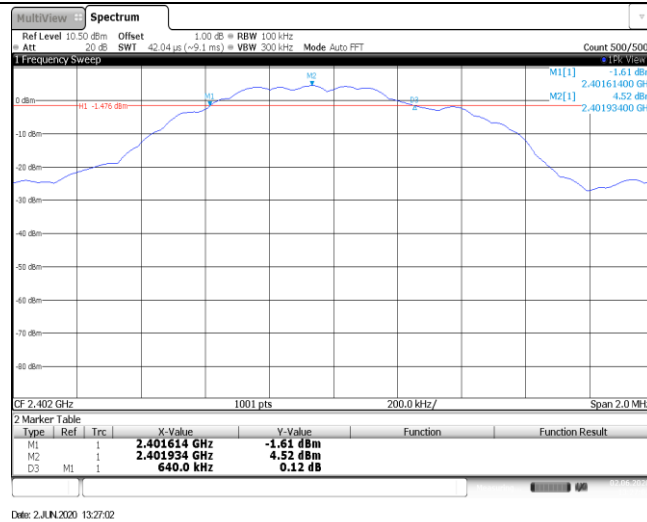
Type	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
BT-BLE	00	-10.25	≤8.00	Pass
	19	-10.18		
	39	-11.02		



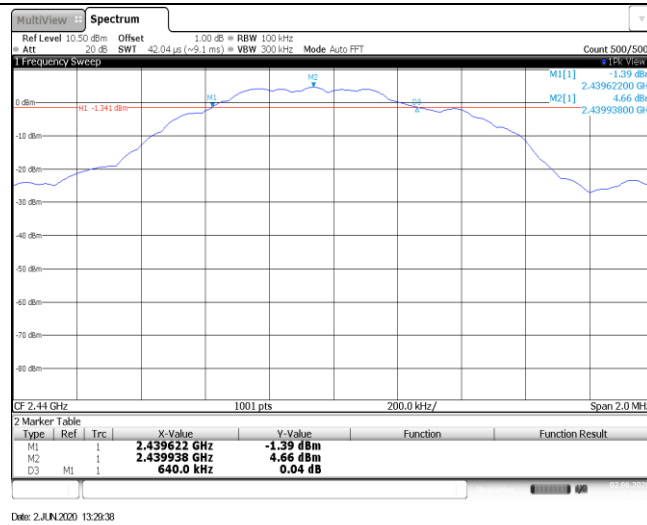
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
BT-BLE	00	640.00	≥500	Pass
	19	640.00		
	39	628.00		

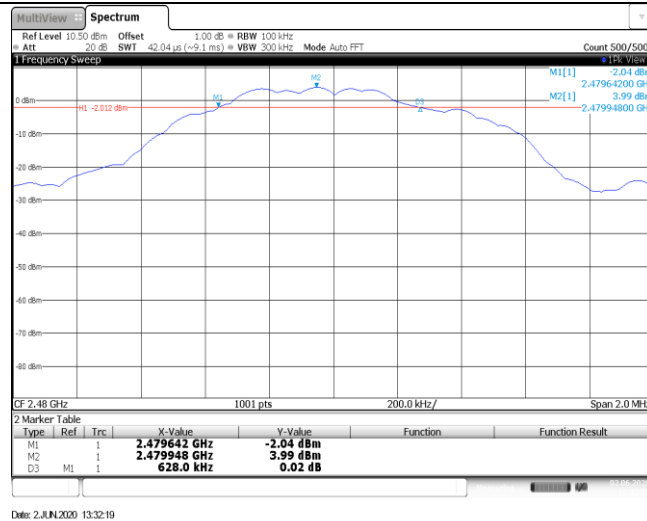
CH00



CH19



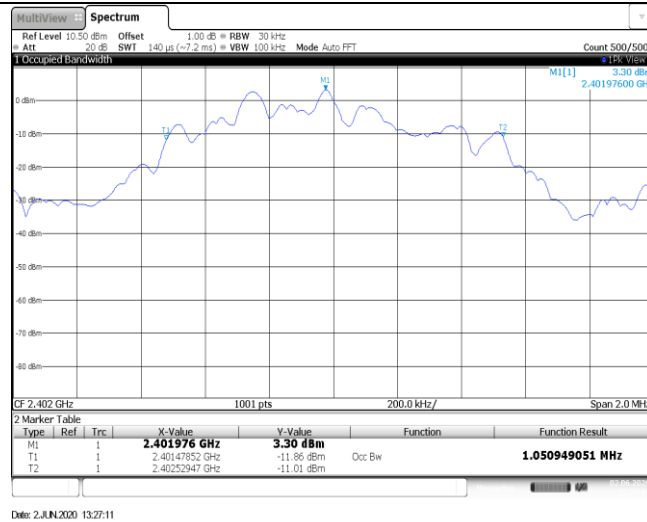
CH39



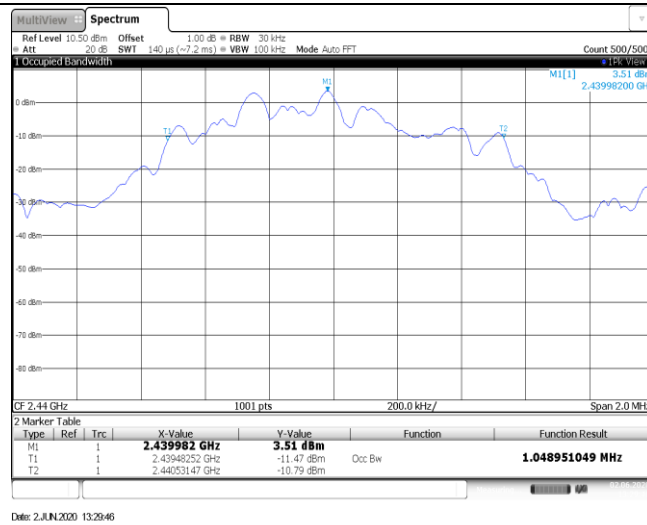
Appendix D: 99% Occupied Bandwidth

Type	Channel	99% Occupied Bandwidth(MHz)	Limit (kHz)	Result
BT-BLE	00	1.05	-	Pass
	19	1.05		
	39	1.05		

CH00



CH19

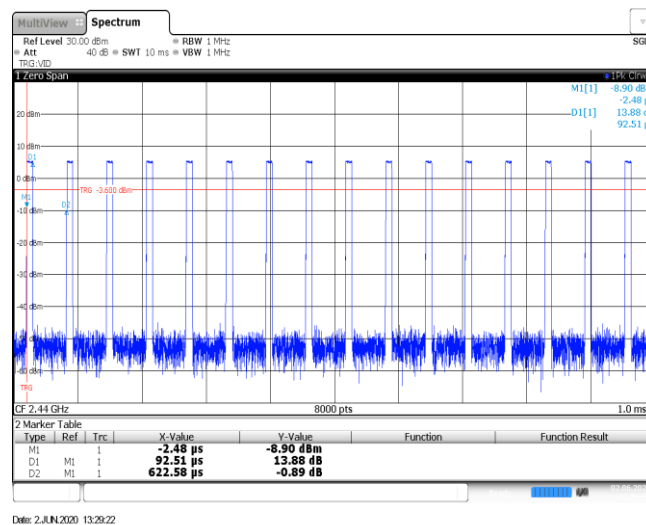


CH39



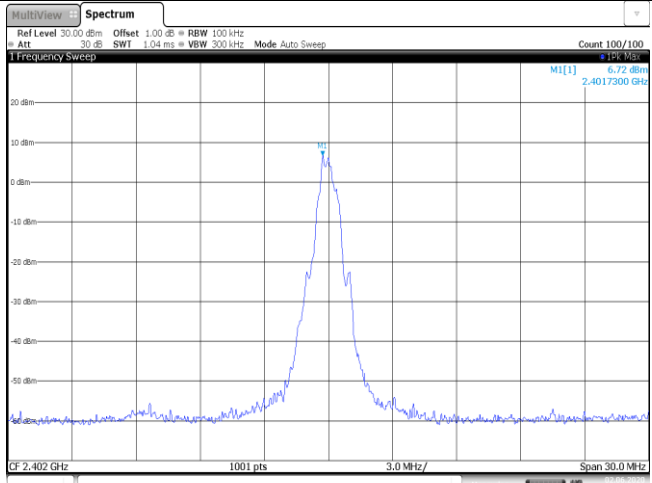
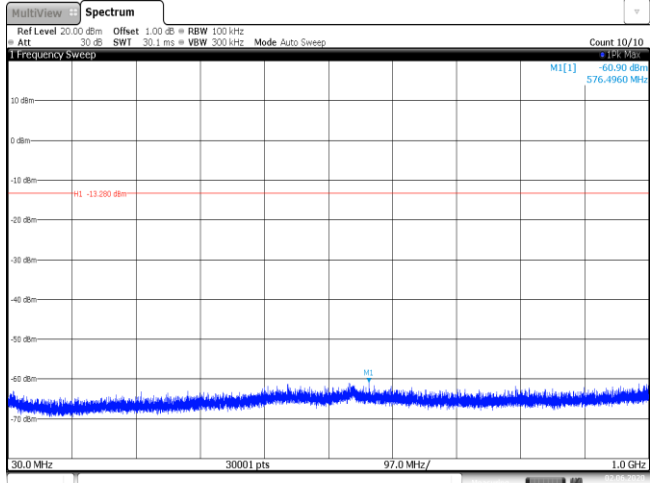
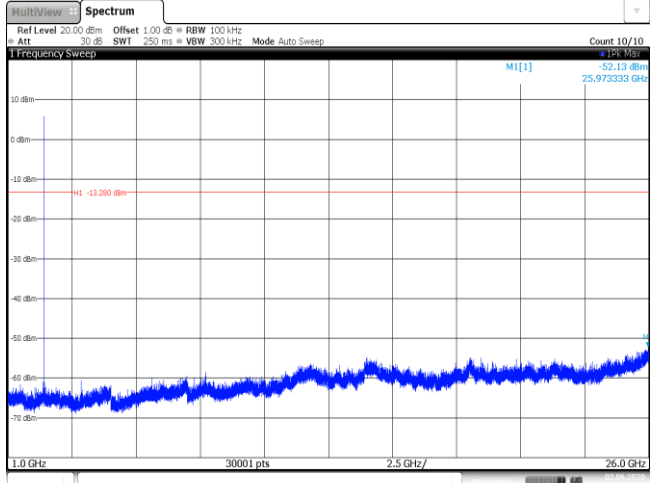
Appendix E: Duty cycle

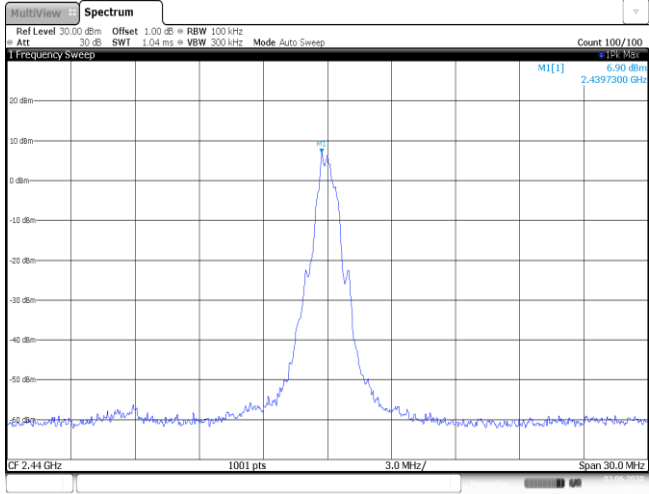
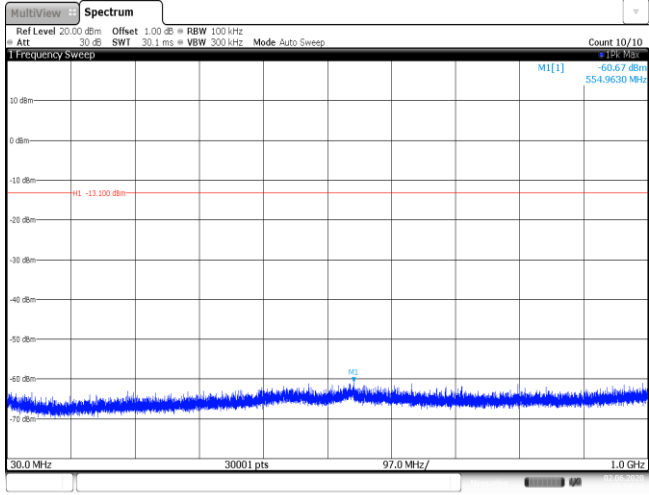
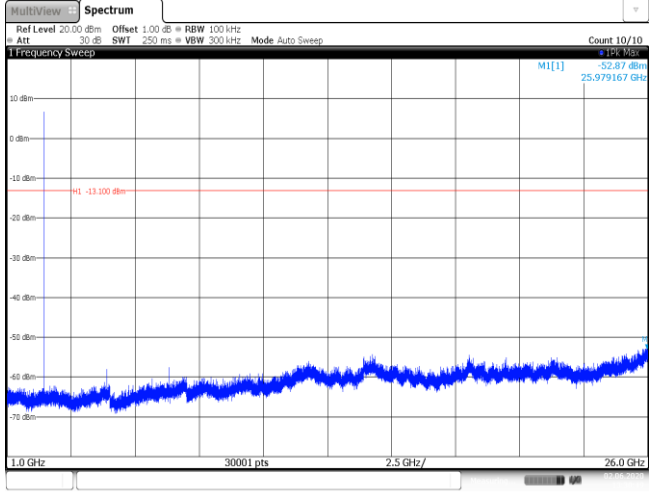
Test Frequency (MHz)	T _{on} time for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on} time (kHz)
2440	0.09	0.62	14.5%	11.1

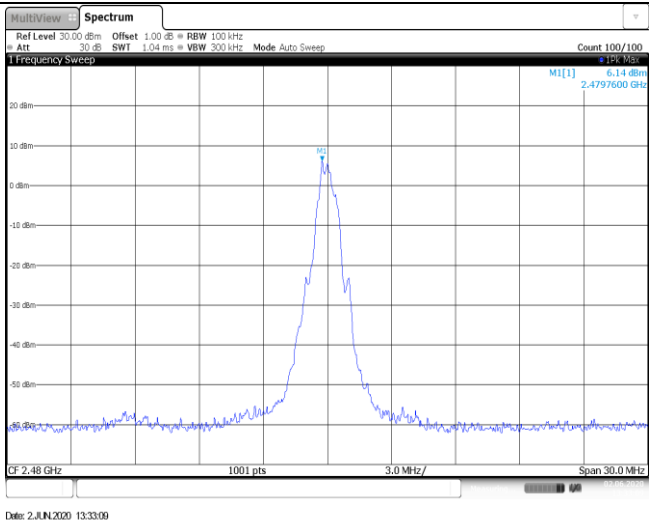
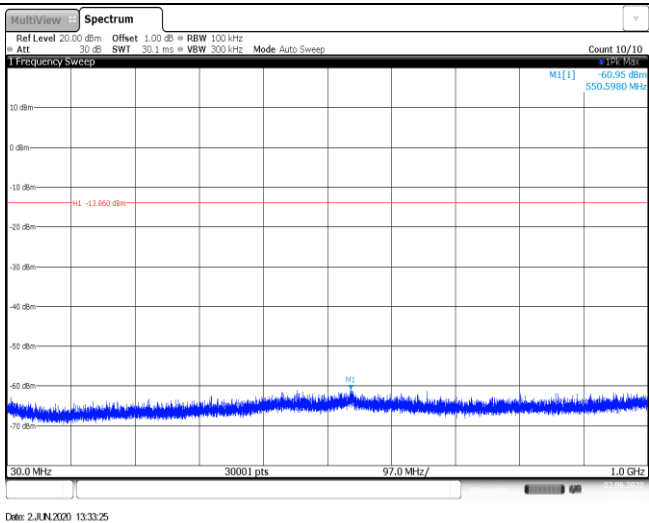
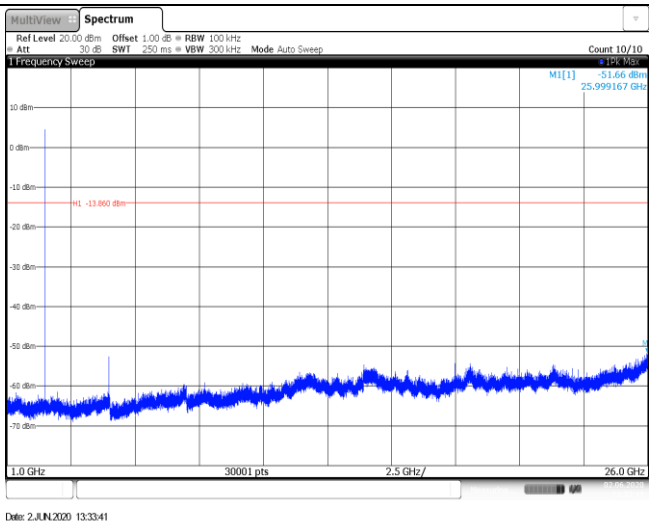


Appendix F: Band edge and Spurious Emissions (conducted)

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 Frequency Sweep 150 MHz 6.50 dBm 2.401726 GHz -53.07 dBm 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>2.401726 GHz</td><td>6.50 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-53.07 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-70.01 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-73.06 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.399965 GHz</td><td>-52.93 dBm</td><td></td><td></td></tr></table> Date: 2 JUN 2020 13:27:46	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.401726 GHz	6.50 dBm			M2	1		2.4 GHz	-53.07 dBm			M3	1		2.39 GHz	-70.01 dBm			M4	1		2.31 GHz	-73.06 dBm			M5	1		2.399965 GHz	-52.93 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 Frequency Sweep 150 MHz 5.93 dBm 2.4797470 GHz -61.49 dBm 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>2.479747 GHz</td><td>5.93 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4835 GHz</td><td>-61.49 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-72.01 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.483544 GHz</td><td>-60.99 dBm</td><td></td><td></td></tr></table> Date: 2 JUN 2020 13:33:02	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.479747 GHz	5.93 dBm			M2	1		2.4835 GHz	-61.49 dBm			M3	1		2.5 GHz	-72.01 dBm			M4	1		2.483544 GHz	-60.99 dBm									
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M3	1		2.5 GHz	-72.01 dBm																																							
M4	1		2.483544 GHz	-60.99 dBm																																							

Test Item:	SE
CH00 Reference level	 Ref Level 20.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWI 1.04 ms VBW 300 kHz Mode Auto Sweep Count 100/100 MI[1] 6.72 dBm 2.4017300 GHz CF 2.402 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 2 JUN 2020 13:27:53
CH00 30MHz~1000MHz	 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 MI[1] -60.90 dBm 576.4960 MHz 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 2 JUN 2020 13:28:09
CH00 1GHz~26GHz	 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 MI[1] -52.13 dBm 25.975533 GHz 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 2 JUN 2020 13:28:25

CH19 Reference level	 Ref Level 30.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWF 1.04 ms VBW 300 kHz Mode Auto Sweep Count 100/100 M1[1] 6.90 dBm 2.4397300 GHz CF 2.44 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 2 JUN 2020 13:30:17
CH19 30MHz~1000MHz	 Ref Level 20.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWF 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 M1[1] -60.67 dBm 554.9630 MHz M1 -13.100 dBm 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 2 JUN 2020 13:30:33
CH19 1GHz~26GHz	 Ref Level 20.00 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SWF 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 M1[1] -52.87 dBm 25.979167 GHz M1 -13.100 dBm 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 2 JUN 2020 13:30:49

CH39 Reference level	 The spectrum plot shows a single sharp peak at 2.4797600 GHz with a magnitude of 6.14 dBm. The x-axis ranges from 2.48 GHz to 3.0 MHz, and the y-axis ranges from -80 dBm to 20 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 30.00 dBm, Offset 1.00 dB, RBW 100 kHz, Att 30 dB, SWF 1.04 ms, VSW 300 kHz, Mode Auto Sweep, Count 100/100.
CH39 30MHz~1000MHz	 The spectrum plot shows a flat noise floor across the 30 MHz to 1000 MHz range. The x-axis ranges from 30.0 MHz to 1.0 GHz, and the y-axis ranges from -70 dBm to 10 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 100 kHz, Att 30 dB, SWF 30.1 ms, VSW 300 kHz, Mode Auto Sweep, Count 10/10. A red line indicates a level of -13.860 dBm.
CH39 1GHz~26GHz	 The spectrum plot shows a flat noise floor across the 1 GHz to 26 GHz range. The x-axis ranges from 1.0 GHz to 26.0 GHz, and the y-axis ranges from -70 dBm to 10 dBm. The plot is titled 'Spectrum' and includes parameters: Ref Level 20.00 dBm, Offset 1.00 dB, RBW 100 kHz, Att 30 dB, SWF 250 ms, VSW 300 kHz, Mode Auto Sweep, Count 10/10. A red line indicates a level of -13.860 dBm.

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