

APPENDIX REPORT

Project No.	SHT2009040902EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT 20090409001	Model No.	CRESCENT
Start test date	2020/9/21	Finish date	2020/9/21
Temperature	25°C	Humidity	50%
Test Engineer	Jiongsheng.Feng	Auditor	Xiaodong Zheo

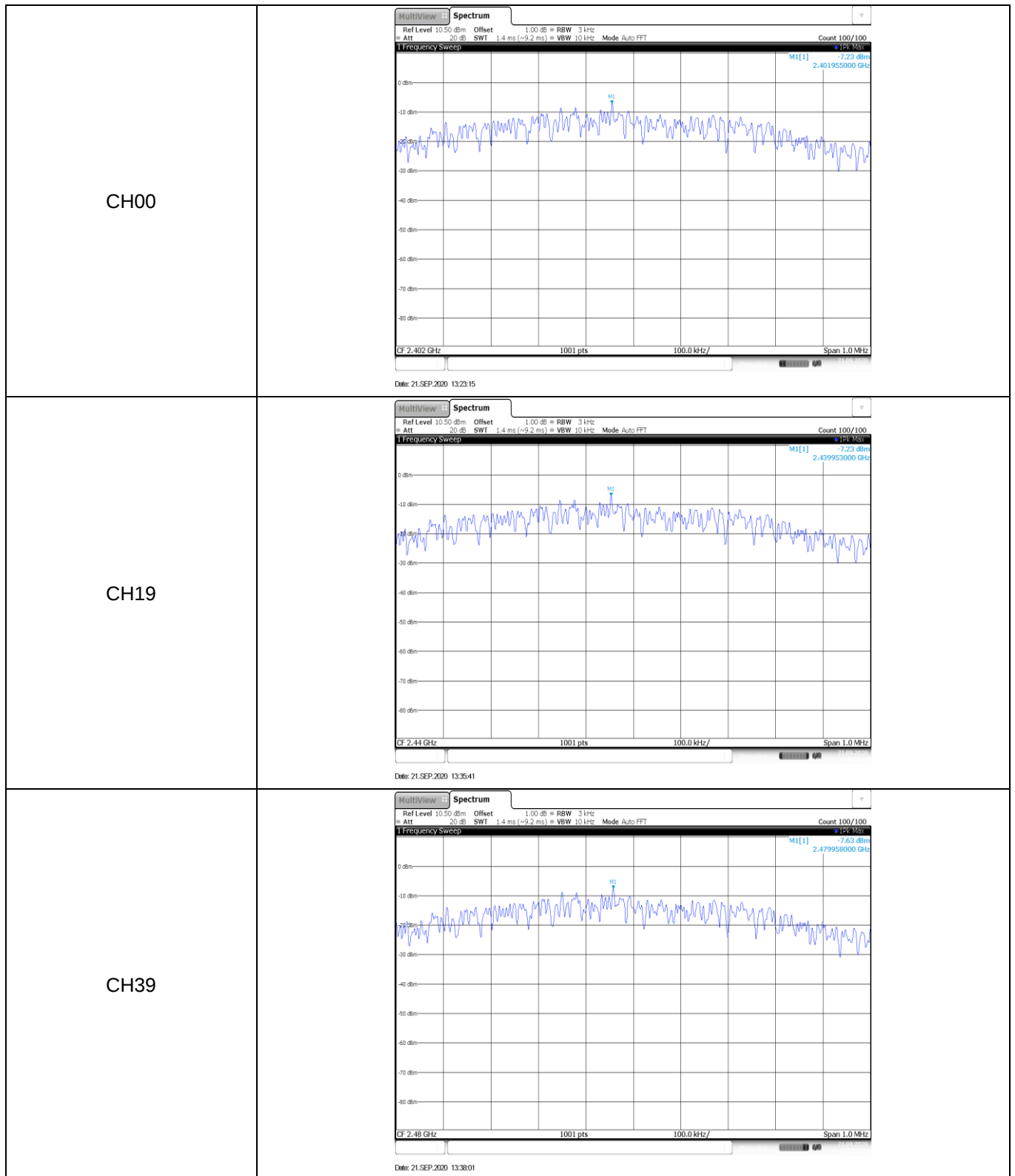
Appendix clause	Test item	Result
A	Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

Appendix A: Peak Output Power

Type	Channel	Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
BT-BLE	00	7.18	7.16	≤ 30.00	Pass
	19	7.01	7.00		
	39	6.72	6.70		

Appendix B: Power Spectral Density

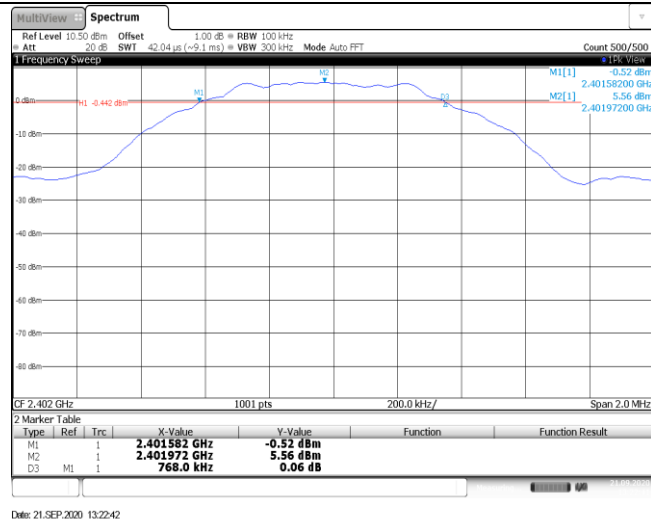
Type	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
BT-BLE	00	-7.23	≤8.00	Pass
	19	-7.23		
	39	-7.63		



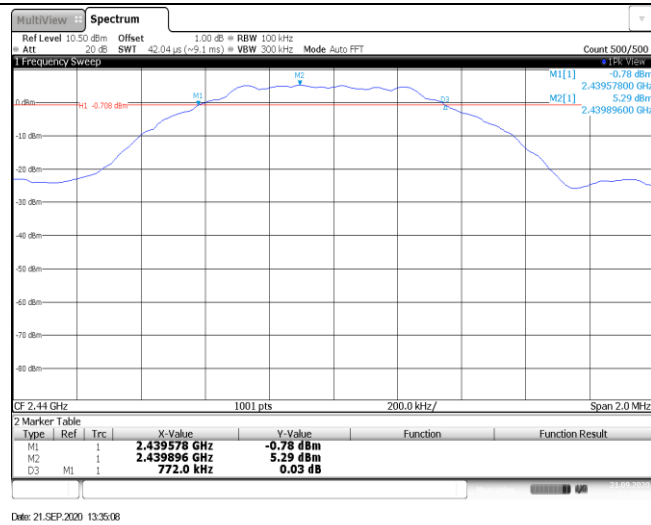
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
BT-BLE	00	768.00	≥500	Pass
	19	772.00		
	39	772.00		

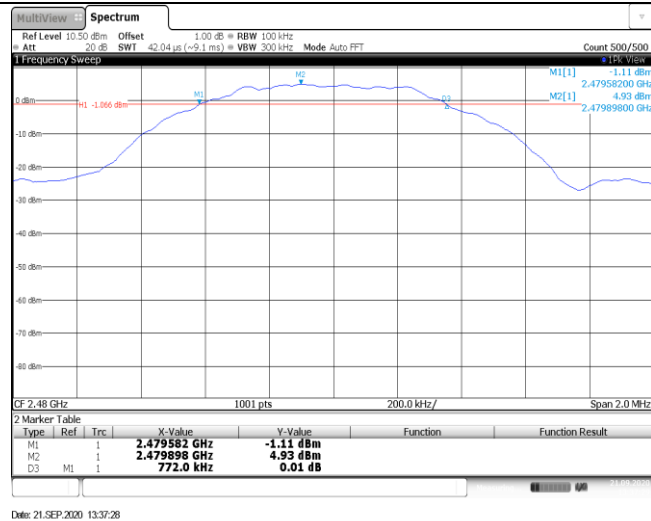
CH00



CH19



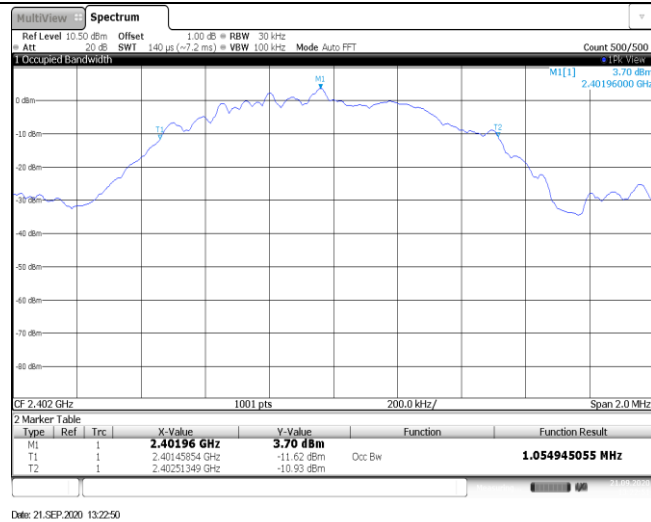
CH39



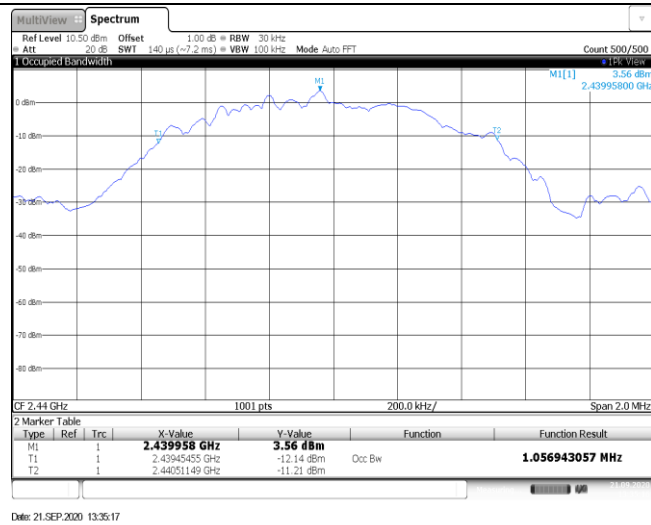
Appendix D: 99% Occupied Bandwidth

Type	Channel	99% Occupied Bandwidth(MHz)	Limit (kHz)	Result
BT-BLE	00	1.05	-	Pass
	19	1.06		
	39	1.06		

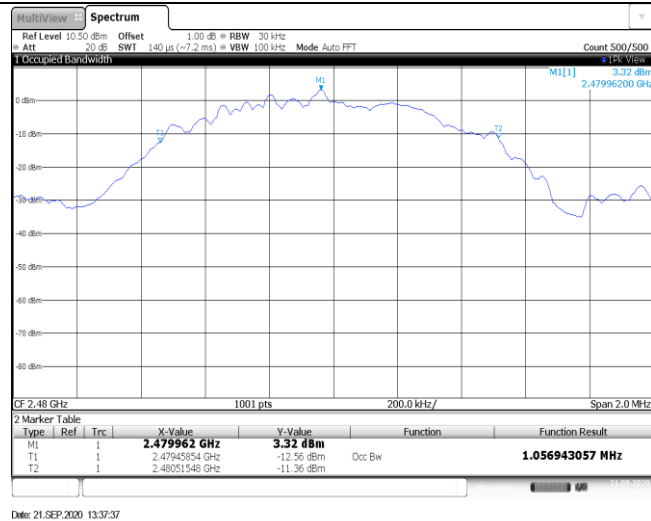
CH00



CH19

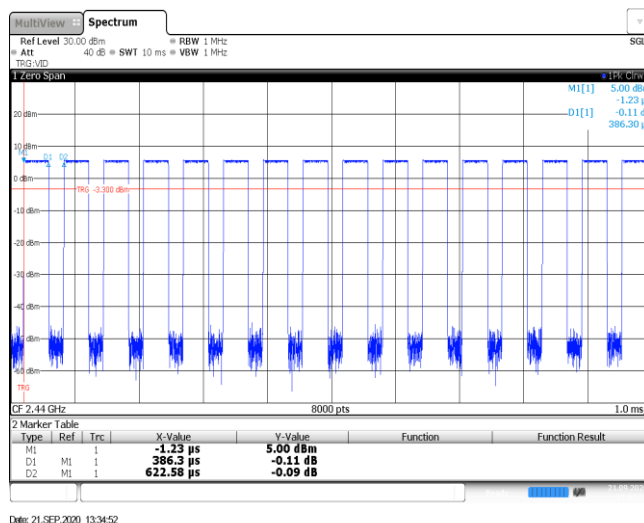


CH39



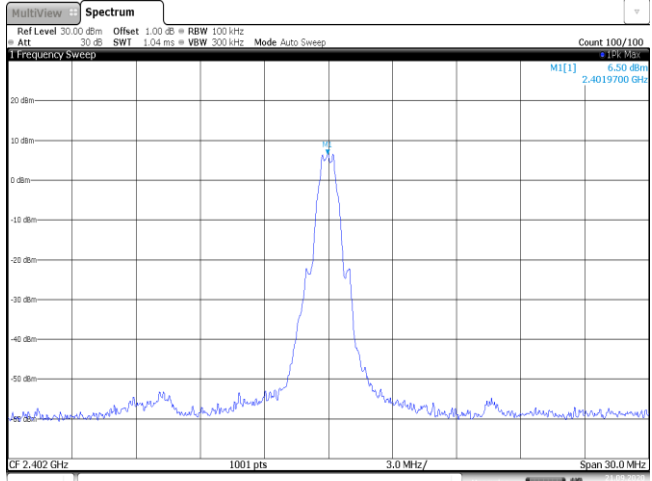
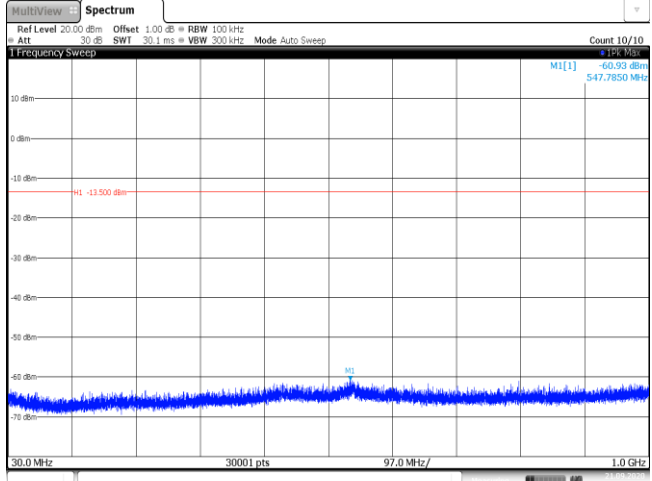
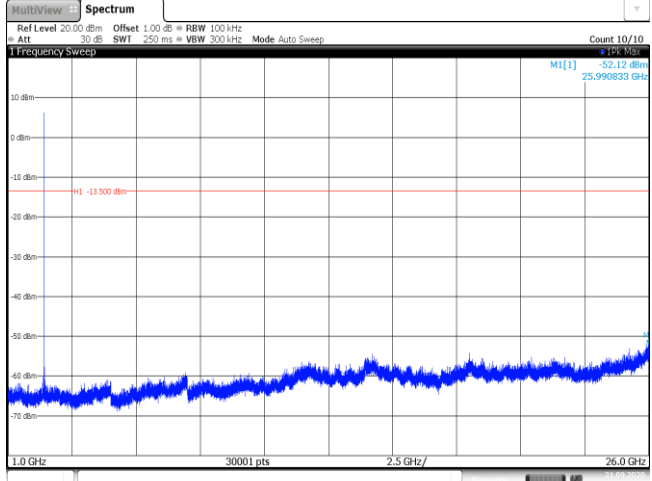
Appendix E: Duty cycle

Test Frequency (MHz)	T _{on} time for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on} time (kHz)
2440	0.39	0.62	62.9%	2.6

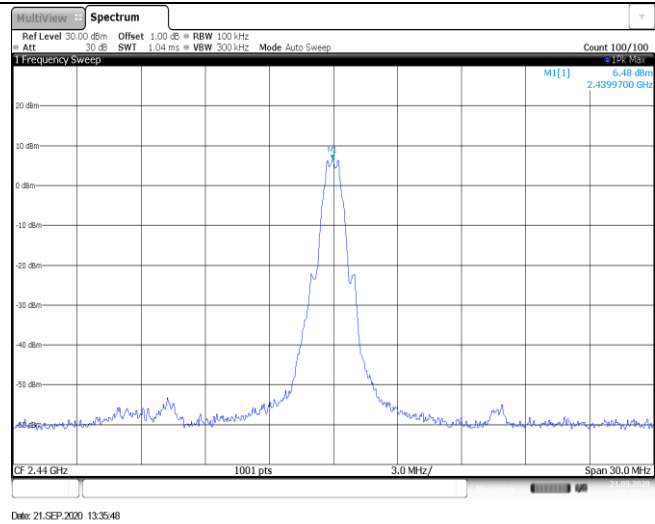


Appendix F: Band edge and Spurious Emissions (conducted)

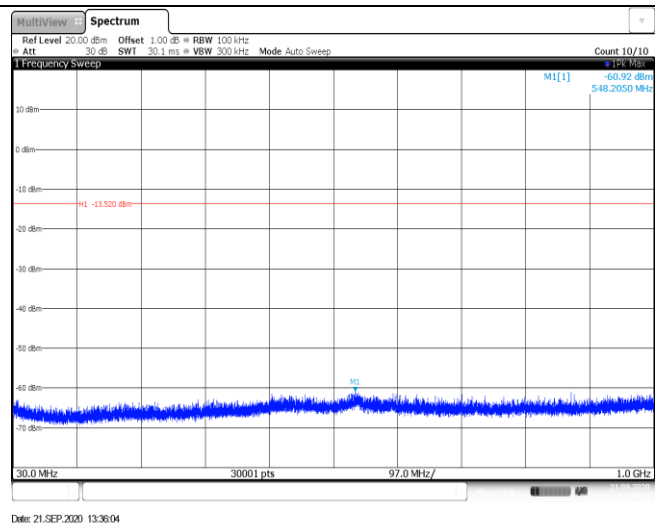
Test Item:	Band edge																																										
CH00	MultiView Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 100 kHz ATT 20 dB SWT 1.05 ms VBW 300 kHz Mode Auto Sweep Count 300/300 1 Frequency Sweep M1[1] 6.38 dBm M2[1] -50.84 dBm 2.401916 GHz 2.400000 GHz 2.31 GHz 1001 pts 9.5 MHz/ 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>2.401916 GHz</td><td>6.38 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-50.84 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-69.11 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-71.13 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.364523 GHz</td><td>-63.70 dBm</td><td></td><td></td></tr></table> Date: 21.SEP.2020 13:23:50	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.401916 GHz	6.38 dBm			M2	1		2.4 GHz	-50.84 dBm			M3	1		2.39 GHz	-69.11 dBm			M4	1		2.31 GHz	-71.13 dBm			M5	1		2.364523 GHz	-63.70 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																					
M1	1		2.401916 GHz	6.38 dBm																																							
M2	1		2.4 GHz	-50.84 dBm																																							
M3	1		2.39 GHz	-69.11 dBm																																							
M4	1		2.31 GHz	-71.13 dBm																																							
M5	1		2.364523 GHz	-63.70 dBm																																							
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 1 Frequency Sweep M1[1] 5.94 dBm M2[1] -59.53 dBm 2.479967 GHz 2.483500 GHz 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>2.479967 GHz</td><td>5.94 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4835 GHz</td><td>-59.53 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.5 GHz</td><td>-70.81 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.487636 GHz</td><td>-58.16 dBm</td><td></td><td></td></tr></table> Date: 21.SEP.2020 13:38:13	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		2.479967 GHz	5.94 dBm			M2	1		2.4835 GHz	-59.53 dBm			M3	1		2.5 GHz	-70.81 dBm			M4	1		2.487636 GHz	-58.16 dBm									
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																																					
M1	1		2.479967 GHz	5.94 dBm																																							
M2	1		2.4835 GHz	-59.53 dBm																																							
M3	1		2.5 GHz	-70.81 dBm																																							
M4	1		2.487636 GHz	-58.16 dBm																																							

Test Item:	SE
CH00 Reference level	 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 MI[1] 6.50 dBm 2.4019700 GHz CF 2.402 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 21.SEP.2020 13:23:57
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] -60.93 dBm 547.7850 MHz 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 21.SEP.2020 13:24:14
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] -52.12 dBm 25.990633 GHz 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 21.SEP.2020 13:24:30

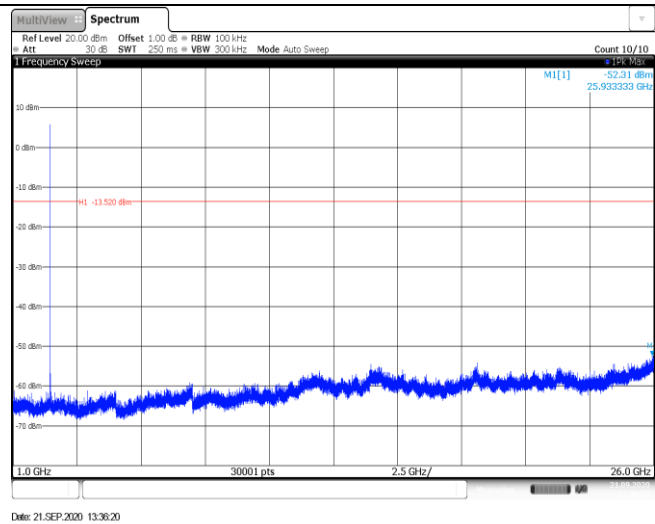
CH19
Reference level

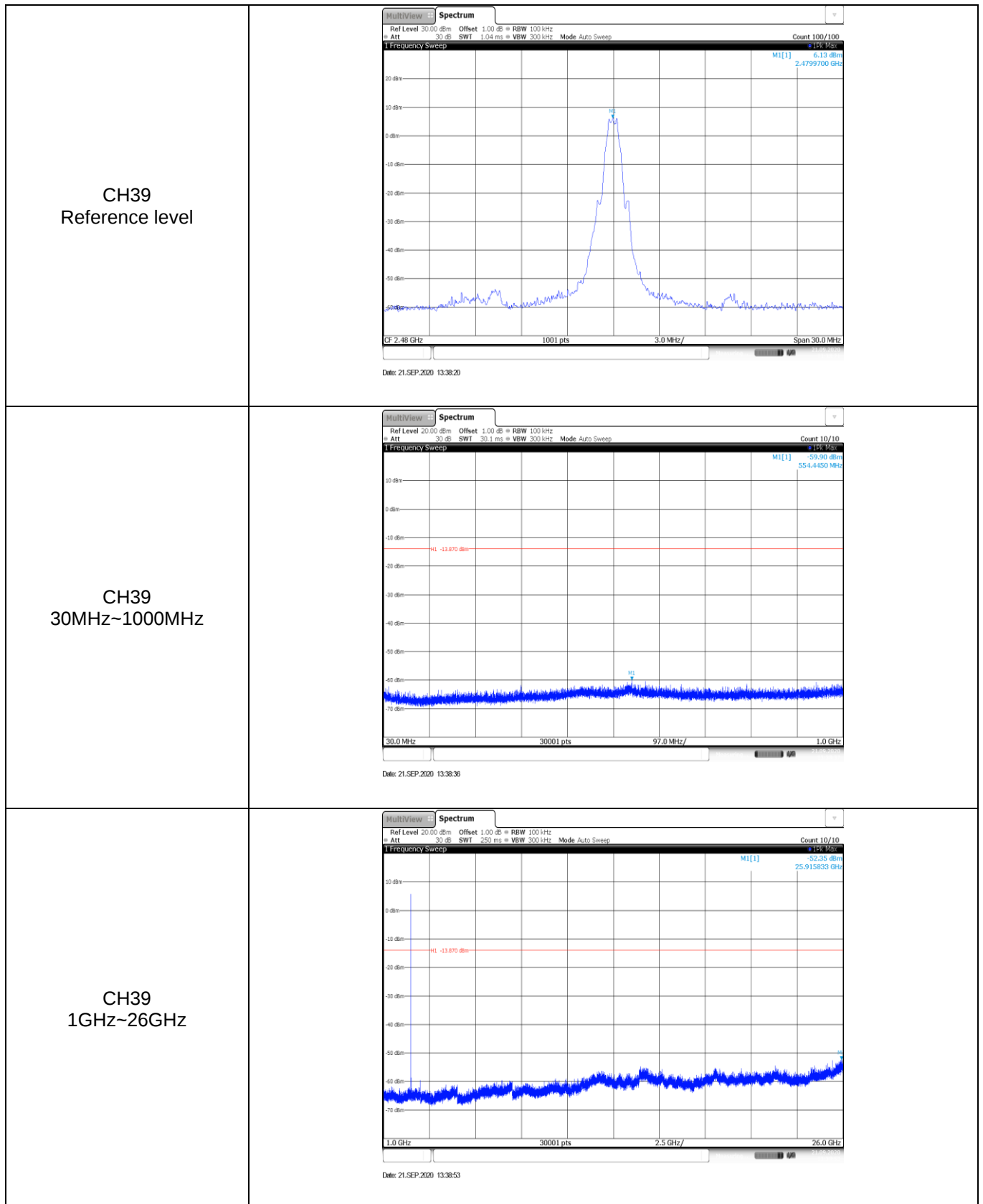


CH19
30MHz~1000MHz



CH19
1GHz~26GHz





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