

APPENDIX REPORT

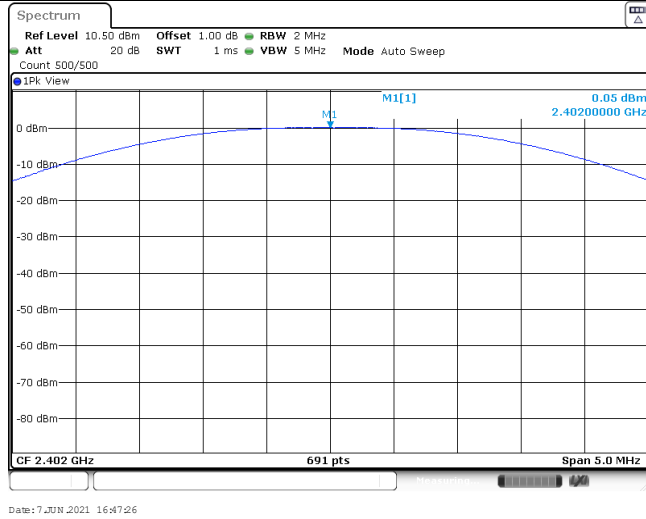
Project No.	SHT2105044101EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT21050441007	Model No.	AKX00034
Start test date	2021-06-07	Finish date	2021-06-07
Temperature	25.6°C	Humidity	31%
Test Engineer	Qizhi Zhang	Auditor	Xiaodong Zhu

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

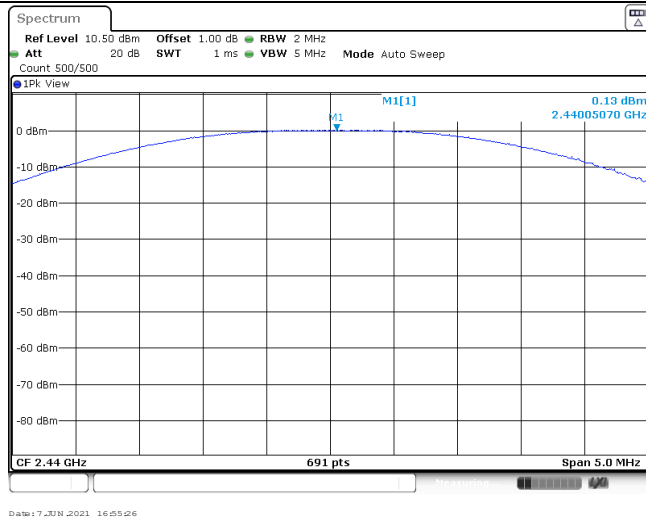
Appendix A: Peak Output Power

Type	Channel	Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
BT-BLE	00	0.05	0.04	≤ 30.00	Pass
	19	0.13	0.11		
	39	-0.29	-0.31		

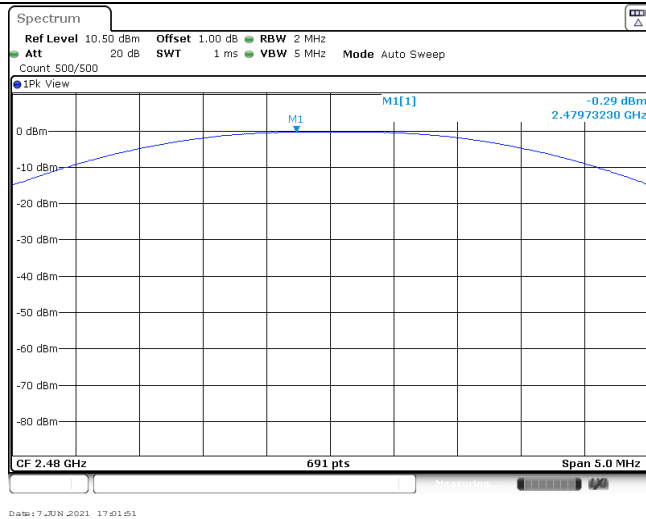
CH00



CH19



CH39



Appendix B: Power Spectral Density

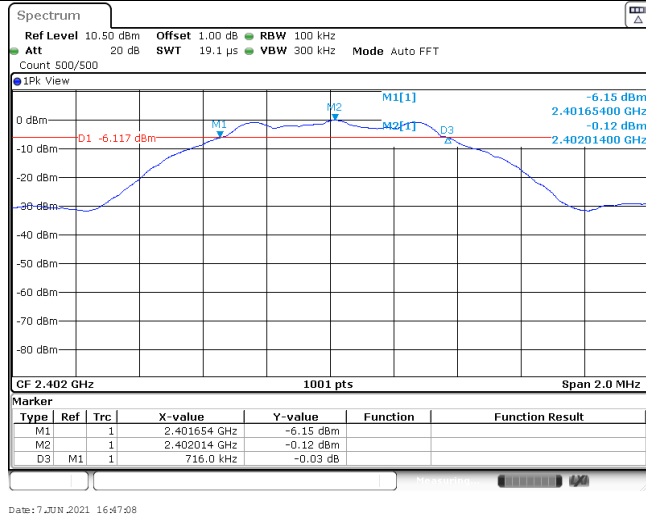
Type	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
BT-BLE	00	-15.41	≤8.00	Pass
	19	-15.50		
	39	-15.74		

<p>CH00</p>	<p>Spectrum 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 -15.41 dBm 2.40199130 GHz M1[1] CF 2.402 GHz 691 pts Span 1.0 MHz Date: 7 JUN 2021 16:47:40</p>
<p>CH19</p>	<p>Spectrum 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 -15.50 dBm 2.43999130 GHz M1[1] CF 2.44 GHz 691 pts Span 1.0 MHz Date: 7 JUN 2021 16:55:40</p>
<p>CH39</p>	<p>Spectrum 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 -15.74 dBm 2.47999130 GHz M1[1] CF 2.48 GHz 691 pts Span 1.0 MHz Date: 7 JUN 2021 17:02:05</p>

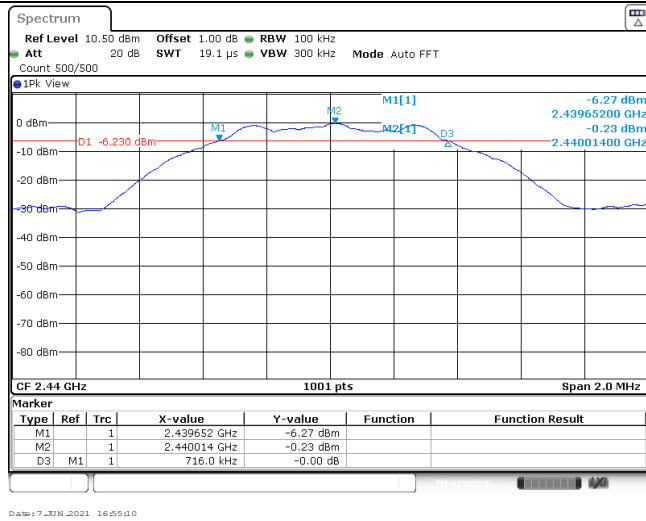
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
BT-BLE	00	716.00	≥500	Pass
	19	716.00		
	39	720.00		

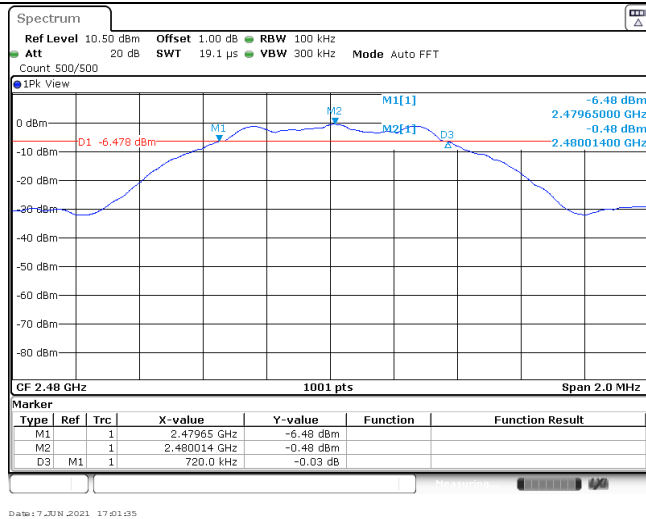
CH00



CH19



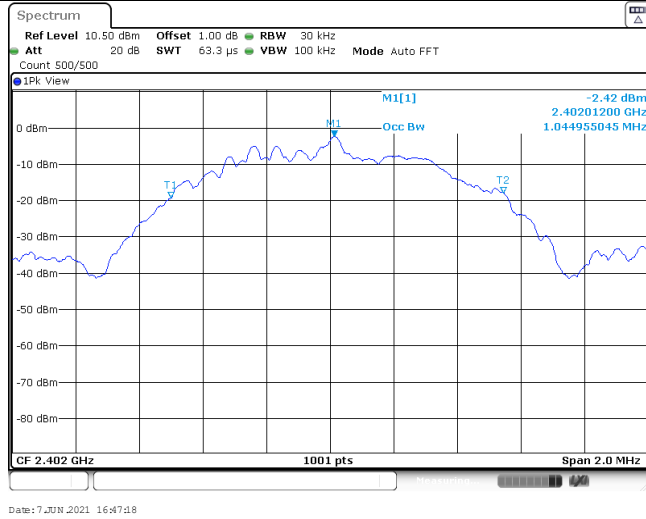
CH39



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		

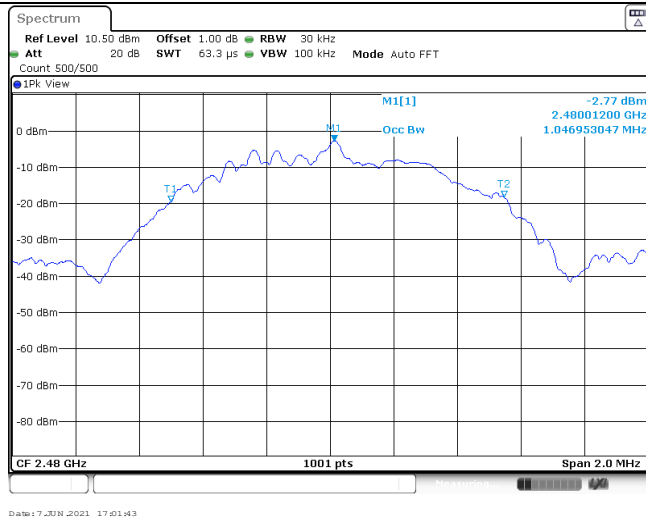
CH00



CH19

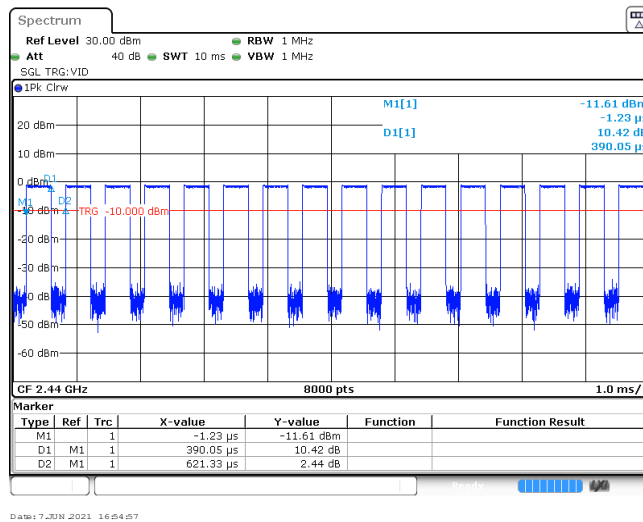


CH39

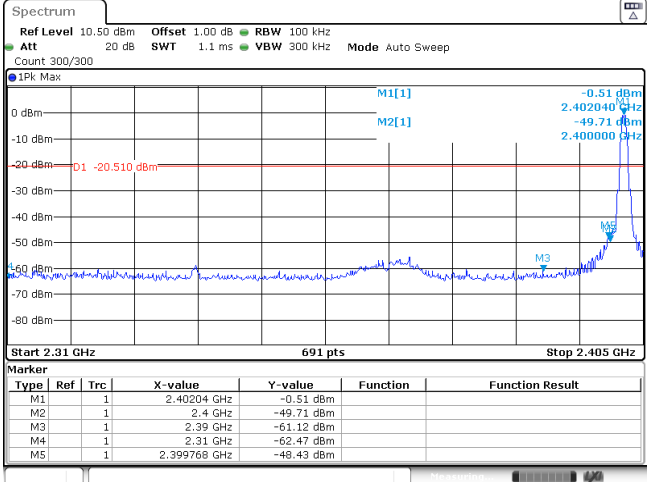
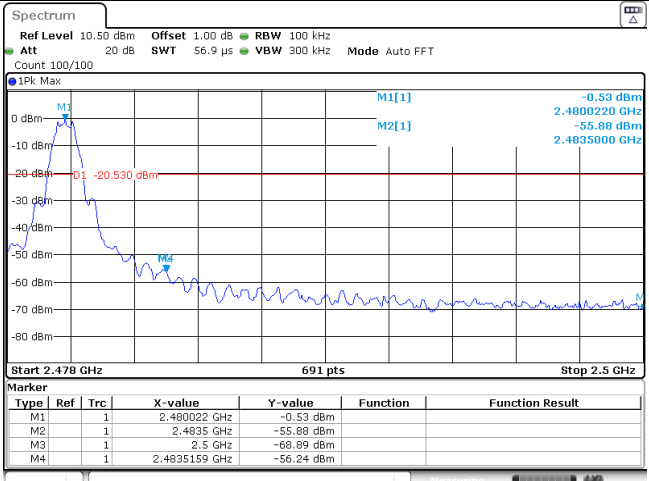


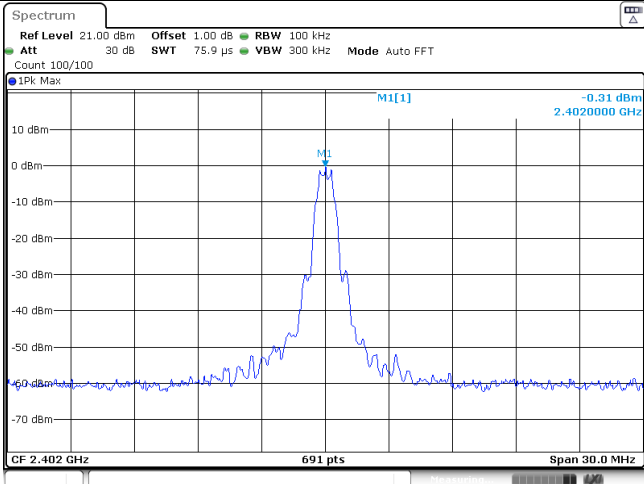
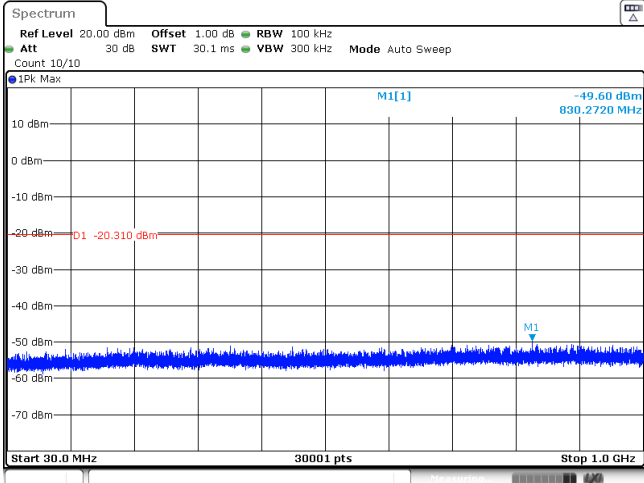
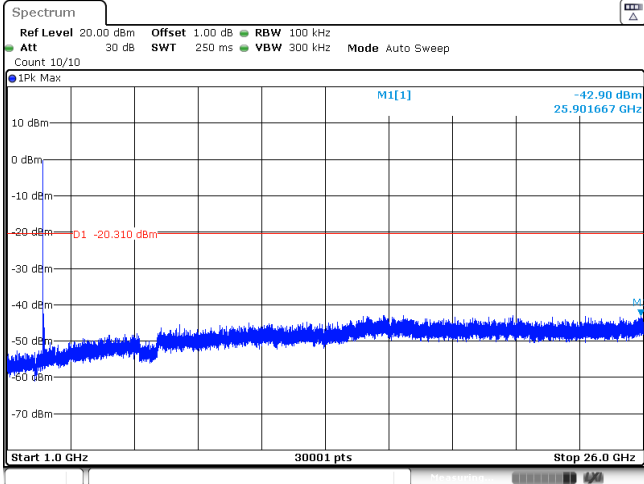
Appendix E: Duty cycle

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

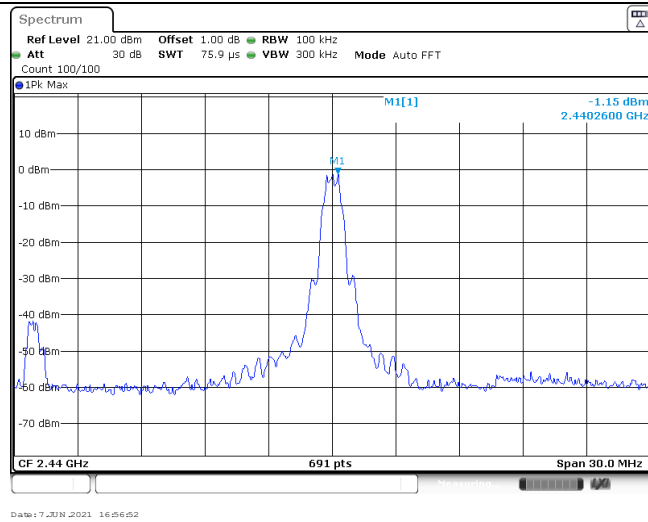


Appendix F: Band edge and Spurious Emissions (conducted)

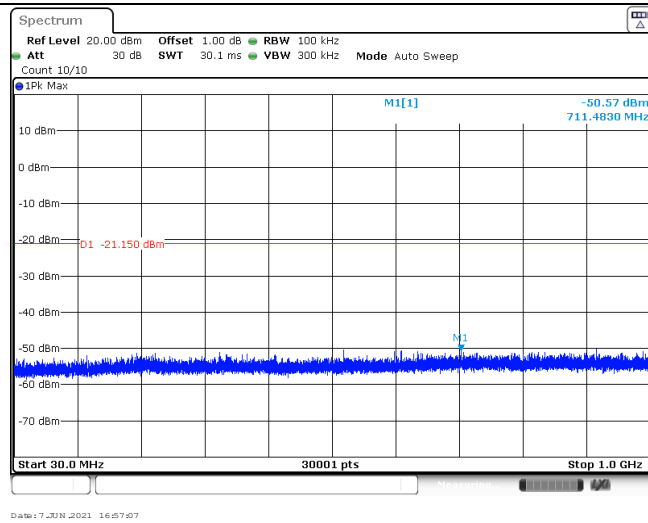
Test Item:	Band edge																																																
<p style="text-align: center;">CH00</p>	 <p>Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 100 kHz Att 20 dB SWT 1.1 ms VBW 300 kHz Mode Auto Sweep Count 300/300</p> <p>1Pk Max</p> <p>0 dBm M1[1] -0.51 dBm 2.402040 GHz -10 dBm M2[1] -49.71 dBm 2.400000 GHz -20 dBm D1 -20.510 dBm -30 dBm -40 dBm -50 dBm M3 -60 dBm -70 dBm -80 dBm</p> <p>Start 2.31 GHz 691 pts Stop 2.405 GHz</p> <table border="1"> <thead> <tr> <th>Marker</th> <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></td> <td>2.40204 GHz</td> <td>-0.51 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td></td> <td>2.4 GHz</td> <td>-49.71 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td></td> <td>2.39 GHz</td> <td>-61.12 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td></td> <td>2.31 GHz</td> <td>-62.47 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td></td> <td>2.399768 GHz</td> <td>-48.43 dBm</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 7 JUN 2021 16:47:49</p>	Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1			2.40204 GHz	-0.51 dBm			M2	1			2.4 GHz	-49.71 dBm			M3	1			2.39 GHz	-61.12 dBm			M4	1			2.31 GHz	-62.47 dBm			M5	1			2.399768 GHz	-48.43 dBm		
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<p style="text-align: center;">CH39</p>	 <p>Spectrum Ref Level 10.50 dBm Offset 1.00 dB RBW 100 kHz Att 20 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT Count 100/100</p> <p>1Pk Max</p> <p>0 dBm M1 -0.53 dBm 2.4800220 GHz -10 dBm M2[1] -55.88 dBm 2.4835000 GHz -20 dBm D1 -20.530 dBm -30 dBm -40 dBm -50 dBm M3 -60 dBm -70 dBm -80 dBm</p> <p>Start 2.478 GHz 691 pts Stop 2.5 GHz</p> <table border="1"> <thead> <tr> <th>Marker</th> <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></td> <td>2.480022 GHz</td> <td>-0.53 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td></td> <td>2.4835 GHz</td> <td>-55.88 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td></td> <td>2.5 GHz</td> <td>-68.89 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td></td> <td>2.4835159 GHz</td> <td>-56.24 dBm</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 7 JUN 2021 17:02:14</p>	Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1			2.480022 GHz	-0.53 dBm			M2	1			2.4835 GHz	-55.88 dBm			M3	1			2.5 GHz	-68.89 dBm			M4	1			2.4835159 GHz	-56.24 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] -0.31 dBm 2.402000 GHz</p> <p>M1</p> <p>CF 2.402 GHz 691 pts Span 30.0 MHz</p> <p>Date: 7_JUN_2021 16:47:57</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] -49.60 dBm 830.2720 MHz</p> <p>D1 -20.310 dBm</p> <p>M1</p> <p>Start 30.0 MHz 30001 pts Stop 1.0 GHz</p> <p>Date: 7_JUN_2021 16:48:12</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] -42.90 dBm 25.901667 GHz</p> <p>D1 -20.310 dBm</p> <p>M1</p> <p>Start 1.0 GHz 30001 pts Stop 26.0 GHz</p> <p>Date: 7_JUN_2021 16:48:27</p>

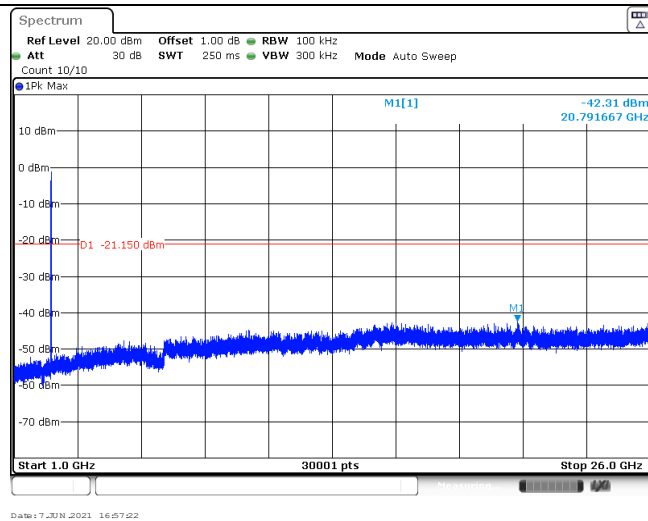
CH19
Reference level

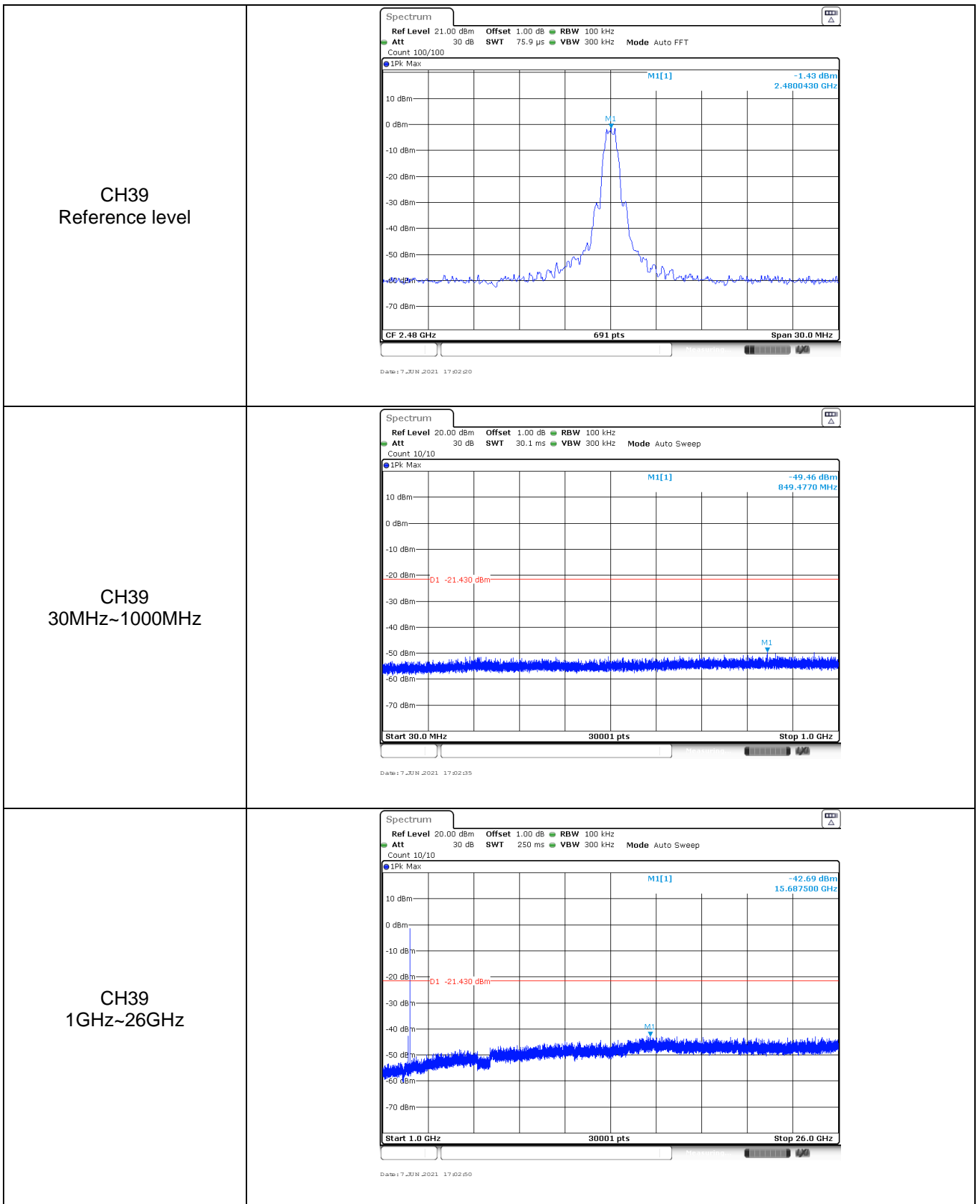


CH19
30MHz~1000MHz



CH19
1GHz~26GHz





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