

APPENDIX REPORT

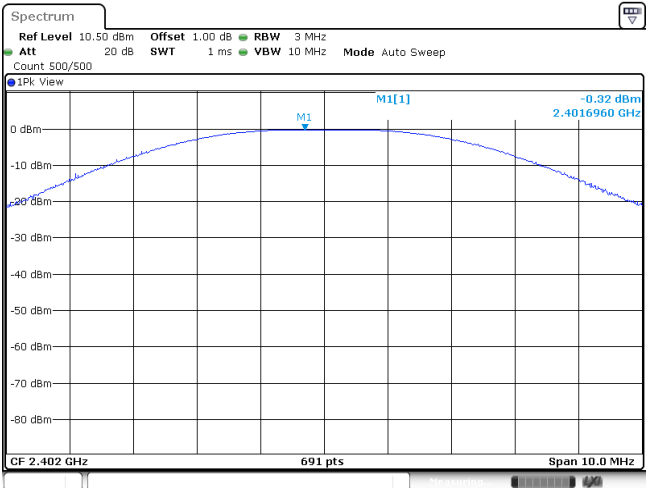
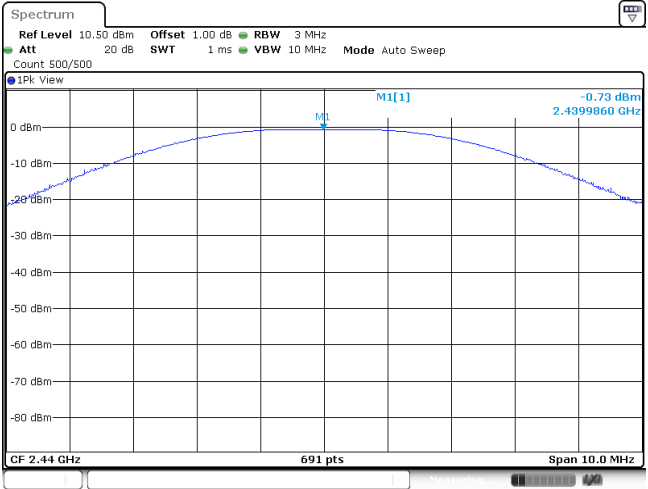
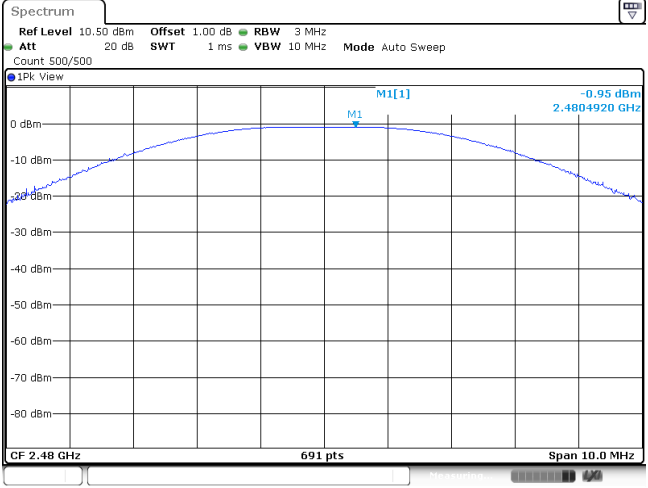
Project No.	SHT2306098005EW	Radio Specification	Bluetooth BLE
Test sample No.	YPHT23060980002	Model No.	iQ2100-3
Start test date	2023-08-22	Finish date	2023-08-22
Temperature	24.4℃	Humidity	48%
Test Engineer	Kongyongshu	Auditor	Xiaodong Zheo

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

Appendix A: Peak Output Power

Test rate	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
1Mbps	00	-0.21	-0.32	≤ 30.00	Pass
	19	-0.64	-0.75		
	39	-0.87	-0.98		
2Mbps	00	-0.32	-0.47	≤ 30.00	Pass
	19	-0.73	-0.86		
	39	-0.95	-1.01		

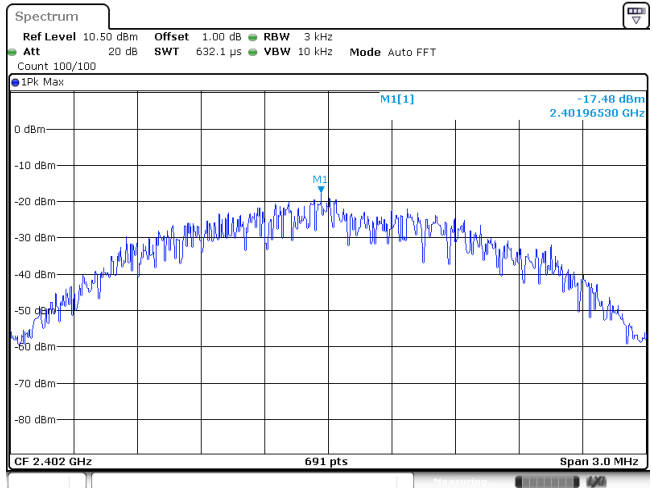
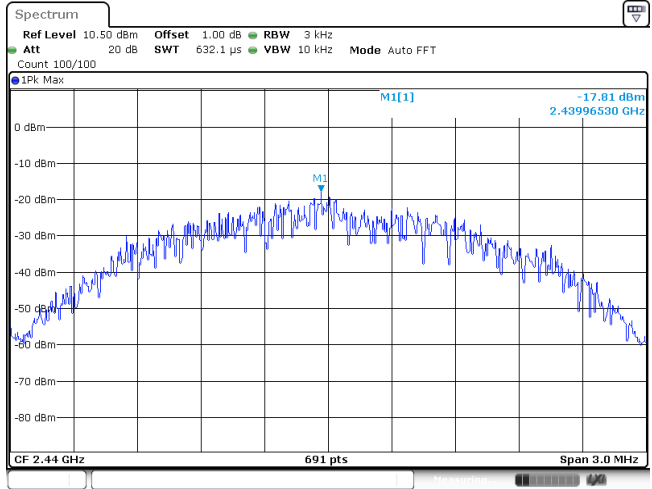
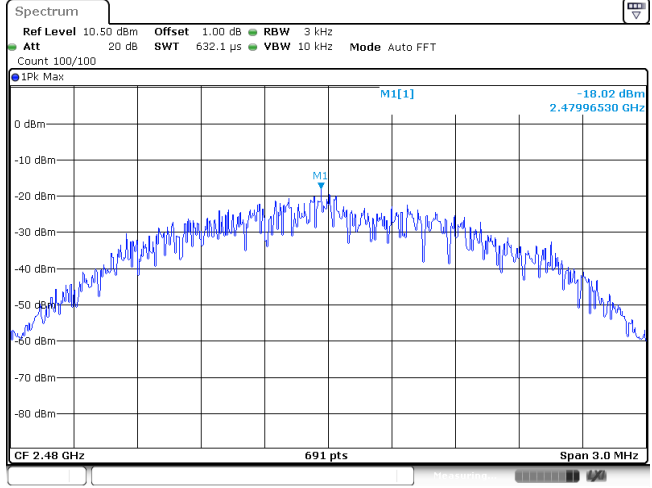
Test rate: 1Mbps	
CH00	<p>Ref Level 10.50 dBm Offset 1.00 dB RBW 2 MHz Att 20 dB SWT 1 ms VBW 5 MHz Mode Auto Sweep Count 500/500 -0.21 dBm 2.40176850 GHz CF 2.402 GHz 691 pts Span 5.0 MHz</p>
CH19	<p>Ref Level 10.50 dBm Offset 1.00 dB RBW 2 MHz Att 20 dB SWT 1 ms VBW 5 MHz Mode Auto Sweep Count 500/500 -0.64 dBm 2.43979740 GHz CF 2.44 GHz 691 pts Span 5.0 MHz</p>
CH39	<p>Ref Level 10.50 dBm Offset 1.00 dB RBW 2 MHz Att 20 dB SWT 1 ms VBW 5 MHz Mode Auto Sweep Count 500/500 -0.87 dBm 2.48000000 GHz CF 2.48 GHz 691 pts Span 5.0 MHz</p>

Test rate: 2Mbps	
CH00	 <p>Spectrum plot for CH00. The plot shows a peak at 2.4016960 GHz with a power level of -0.32 dBm. The plot includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 3 MHz, SWT 1 ms, VBW 10 MHz, Mode Auto Sweep, Count 500/500, CF 2.402 GHz, 691 pts, Span 10.0 MHz.</p>
CH19	 <p>Spectrum plot for CH19. The plot shows a peak at 2.4399860 GHz with a power level of -0.73 dBm. The plot includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 3 MHz, SWT 1 ms, VBW 10 MHz, Mode Auto Sweep, Count 500/500, CF 2.44 GHz, 691 pts, Span 10.0 MHz.</p>
CH39	 <p>Spectrum plot for CH39. The plot shows a peak at 2.4804920 GHz with a power level of -0.95 dBm. The plot includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 3 MHz, SWT 1 ms, VBW 10 MHz, Mode Auto Sweep, Count 500/500, CF 2.48 GHz, 691 pts, Span 10.0 MHz.</p>

Appendix B: Power Spectral Density

Test rate	Channel	Power Spectral Density(dBm/3KHz)	Limit (dBm/3KHz)	Result
1Mbps	00	-14.99	≤8.00	Pass
	19	-15.40		
	39	-15.62		
2Mbps	00	-17.48	≤8.00	Pass
	19	-17.81		
	39	-18.02		

Test rate: 1Mbps	
CH00	<p>Spectrum plot for CH00. The plot shows a signal at 2.40198700 GHz with a peak level of -14.99 dBm. The plot includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 3 kHz, SWT 632.3 μs, VBW 10 kHz, Mode Auto FFT, Count 100/100, and Span 1.0 MHz.</p>
CH19	<p>Spectrum plot for CH19. The plot shows a signal at 2.43998700 GHz with a peak level of -15.40 dBm. The plot includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 3 kHz, SWT 632.3 μs, VBW 10 kHz, Mode Auto FFT, Count 100/100, and Span 1.0 MHz.</p>
CH39	<p>Spectrum plot for CH39. The plot shows a signal at 2.47998700 GHz with a peak level of -15.62 dBm. The plot includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 3 kHz, SWT 632.3 μs, VBW 10 kHz, Mode Auto FFT, Count 100/100, and Span 1.0 MHz.</p>

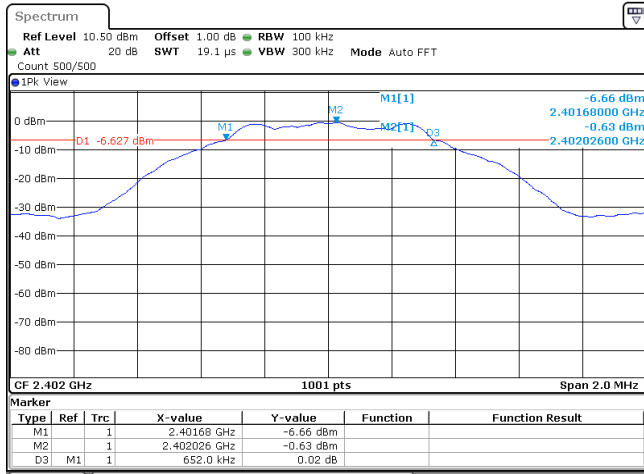
Test rate: 2Mbps	
CH00	 <p>Spectrum plot for CH00. The plot shows a signal centered at 2.40196530 GHz with a peak level of -17.48 dBm. The plot includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 3 kHz, SWT 632.1 μs, VBW 10 kHz, Mode Auto FFT, Count 100/100, IPK Max, M1[1], CF 2.402 GHz, 691 pts, Span 3.0 MHz.</p>
CH19	 <p>Spectrum plot for CH19. The plot shows a signal centered at 2.43996530 GHz with a peak level of -17.81 dBm. The plot includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 3 kHz, SWT 632.1 μs, VBW 10 kHz, Mode Auto FFT, Count 100/100, IPK Max, M1[1], CF 2.44 GHz, 691 pts, Span 3.0 MHz.</p>
CH39	 <p>Spectrum plot for CH39. The plot shows a signal centered at 2.47996530 GHz with a peak level of -18.02 dBm. The plot includes parameters: Ref Level 10.50 dBm, Att 20 dB, Offset 1.00 dB, RBW 3 kHz, SWT 632.1 μs, VBW 10 kHz, Mode Auto FFT, Count 100/100, IPK Max, M1[1], CF 2.48 GHz, 691 pts, Span 3.0 MHz.</p>

Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth(kHz)	Limit (kHz)	Result
1Mbps	00	652.00	≥500	Pass
	19	652.00		
	39	652.00		
2Mbps	00	1145.00	≥500	Pass
	19	1150.00		
	39	1135.00		

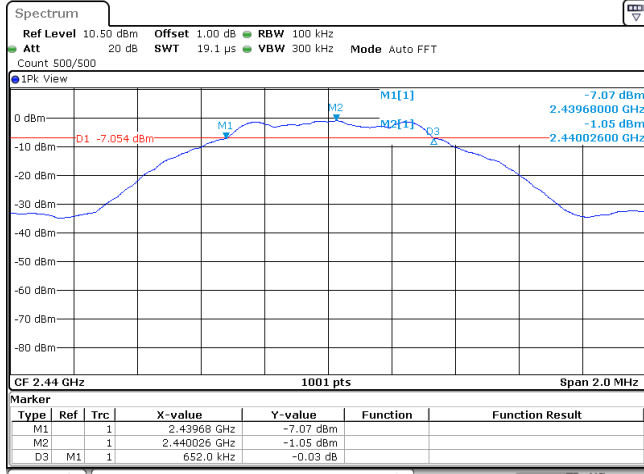
Test rate: 1Mbps

CH00



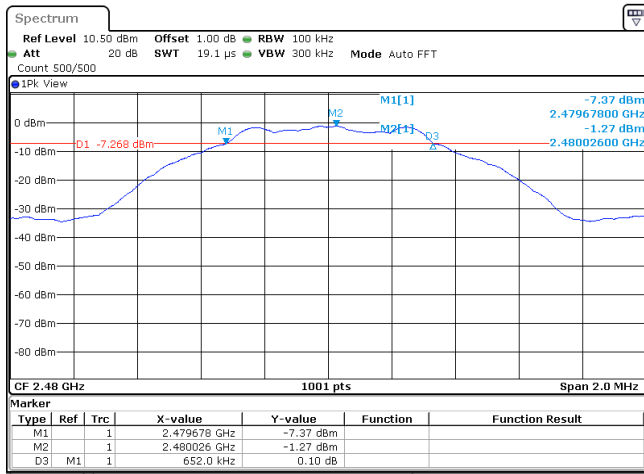
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CH19



Date: 22-May-2023 10:44:00

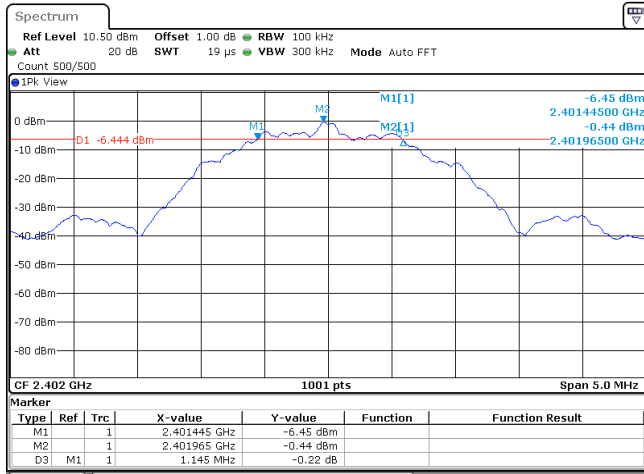
CH39



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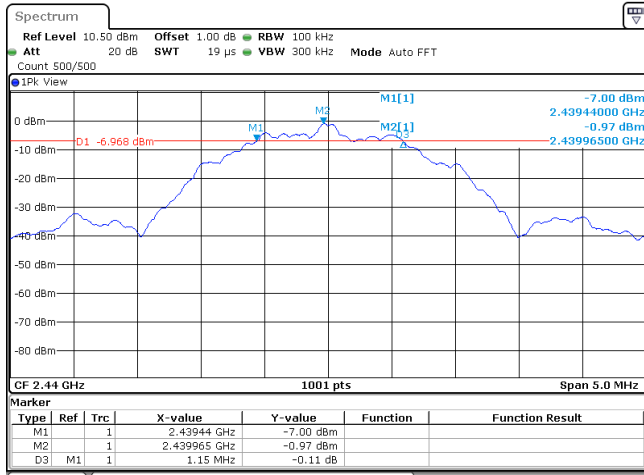
Test rate: 2Mbps

CH00



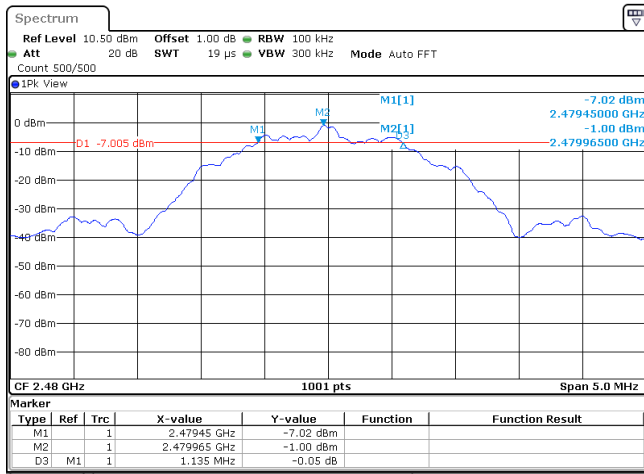
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CH19



Date: 22-May-2023 10:49:06

CH39



Date: 22-May-2023 10:51:03

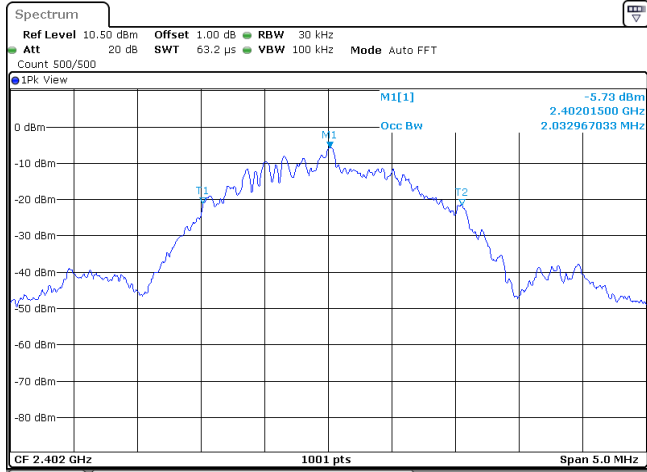
Appendix D: 99% Occupied Bandwidth

Test rate	Channel	99% Occupied Bandwidth(MHz)	Limit (kHz)	Result
1Mbps	00	1.02	-	Pass
	19	1.02		
	39	1.02		
2Mbps	00	2.03	-	Pass
	19	2.03		
	39	2.03		

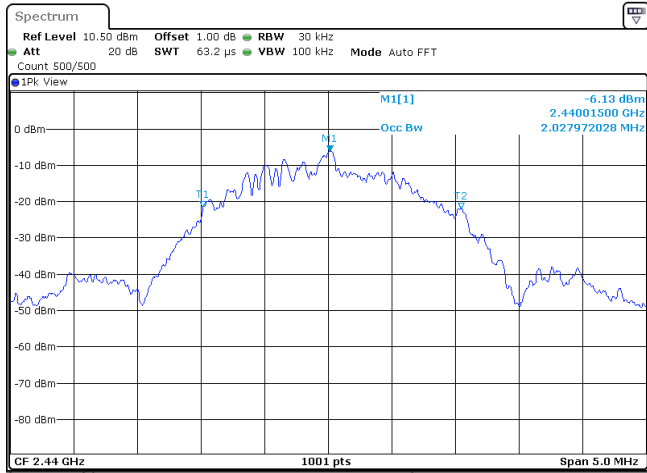
Test rate: 1Mbps	
CH00	<p>Ref Level 10.50 dBm Offset 1.00 dB RBW 30 kHz Att 20 dB SWT 63.3 μs VBW 100 kHz Mode Auto FFT Count 500/500</p> <p>M1[1] -4.37 dBm 2.40200200 GHz 1.016983017 MHz</p> <p>CF 2.402 GHz 1001 pts Span 2.0 MHz</p>
CH19	<p>Ref Level 10.50 dBm Offset 1.00 dB RBW 30 kHz Att 20 dB SWT 63.3 μs VBW 100 kHz Mode Auto FFT Count 500/500</p> <p>M1[1] -4.80 dBm 2.44000200 GHz 1.016983017 MHz</p> <p>CF 2.44 GHz 1001 pts Span 2.0 MHz</p>
CH39	<p>Ref Level 10.50 dBm Offset 1.00 dB RBW 30 kHz Att 20 dB SWT 63.3 μs VBW 100 kHz Mode Auto FFT Count 500/500</p> <p>M1[1] -5.01 dBm 2.48000200 GHz 1.016983017 MHz</p> <p>CF 2.48 GHz 1001 pts Span 2.0 MHz</p>

Test rate: 2Mbps

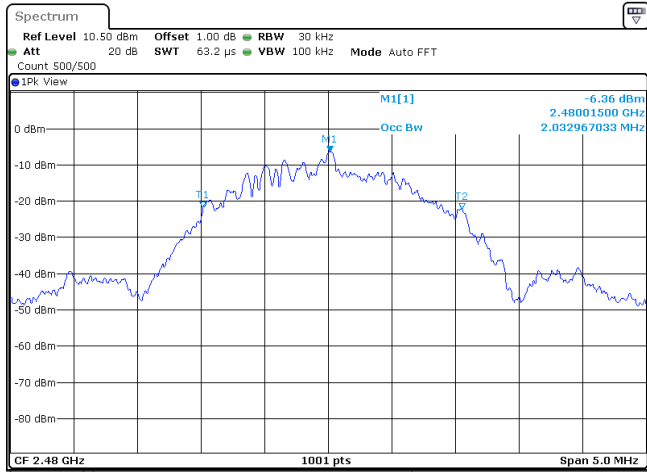
CH00



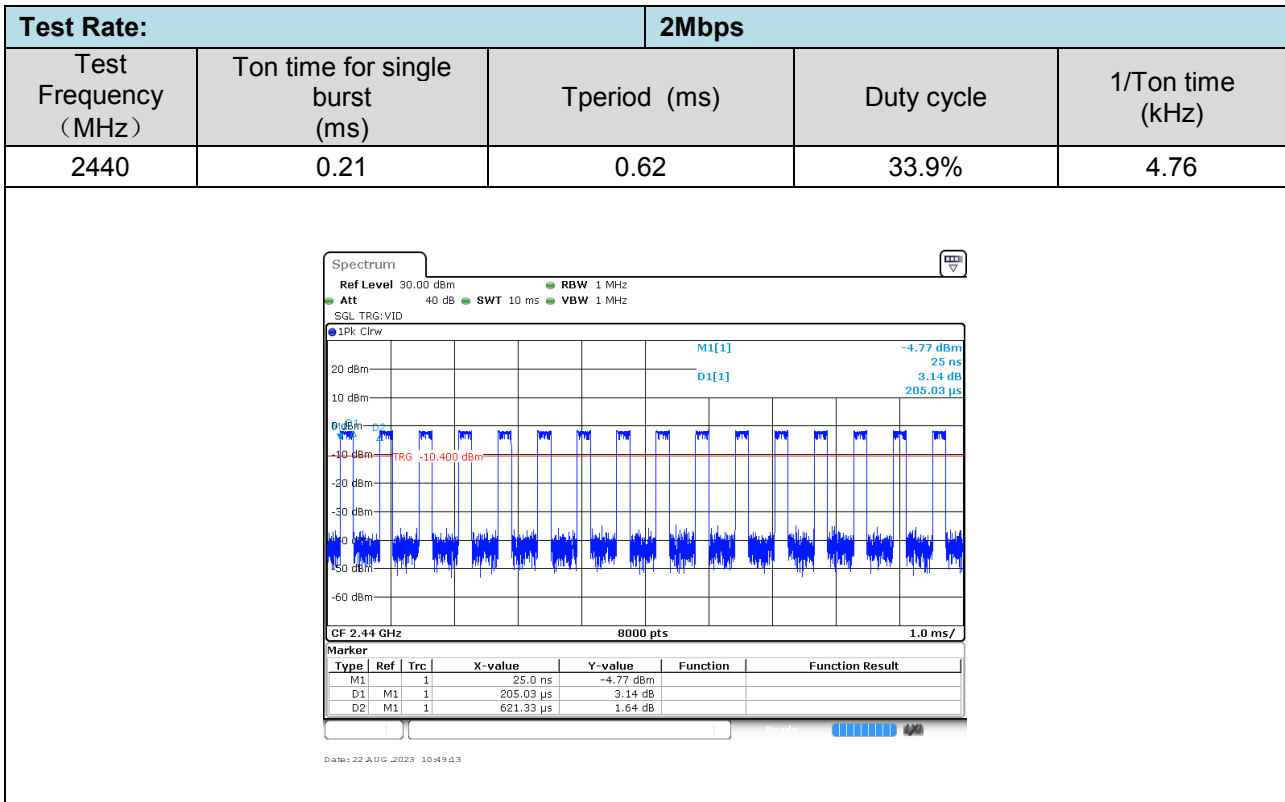
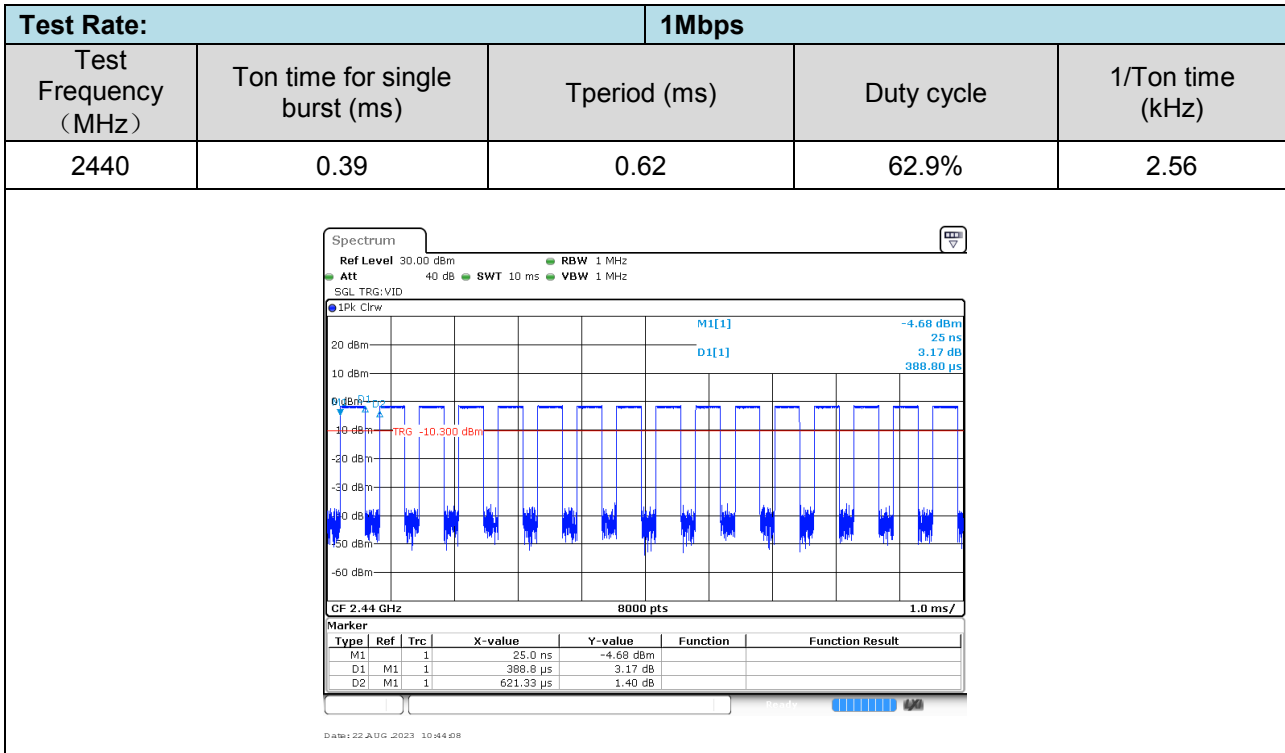
CH19



CH39

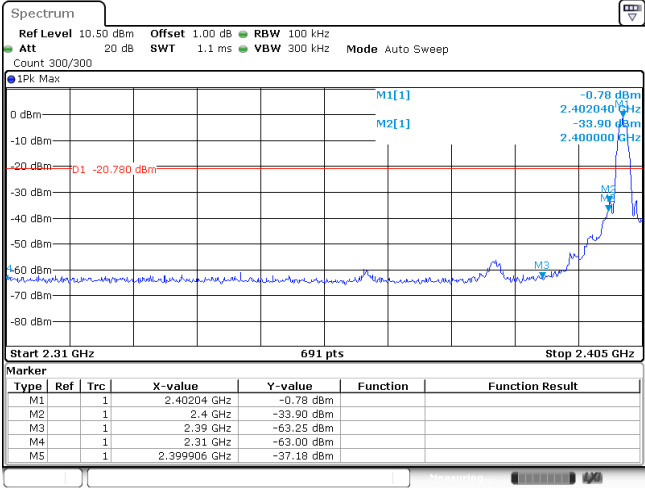
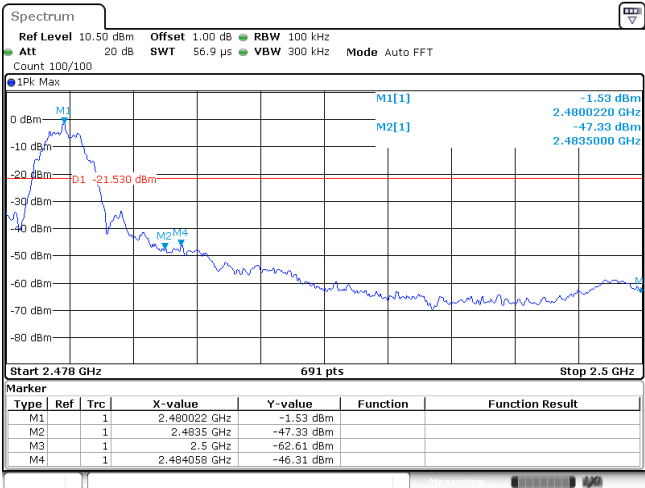


Appendix E: Duty cycle



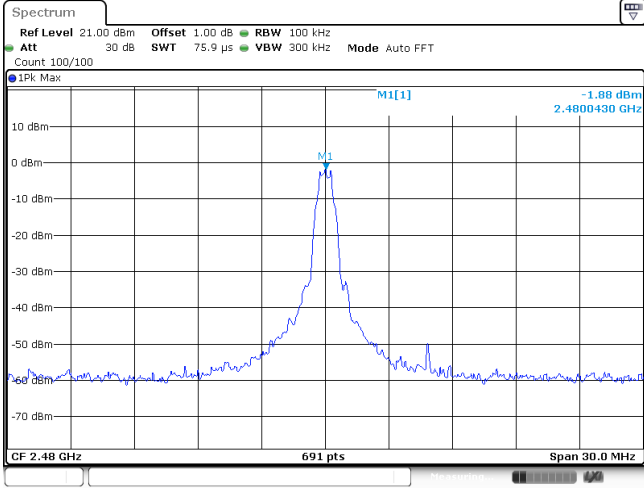
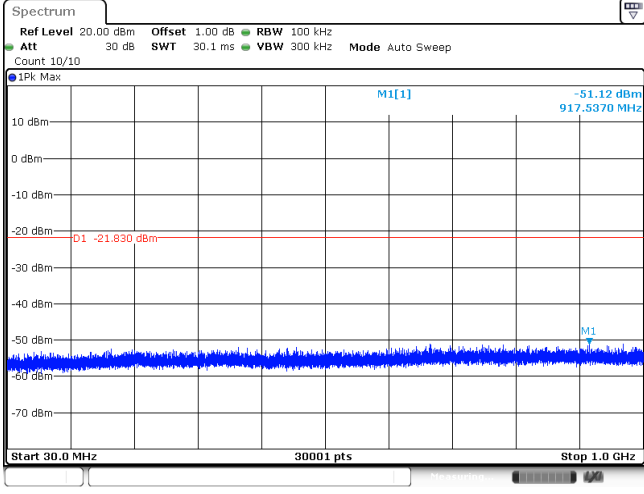
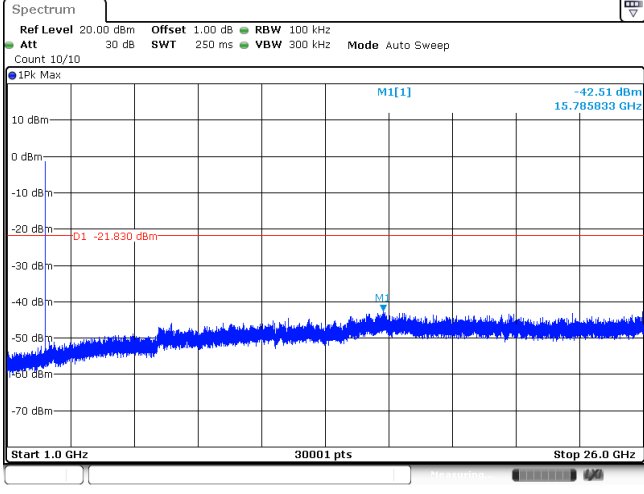
Appendix F: Band edge and Spurious Emissions (conducted)

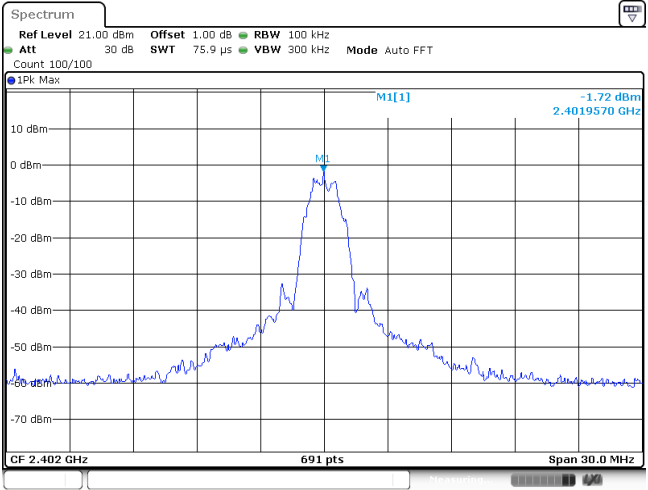
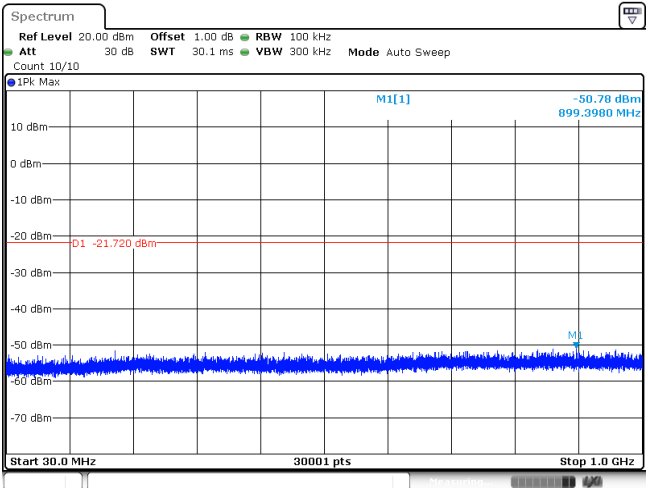
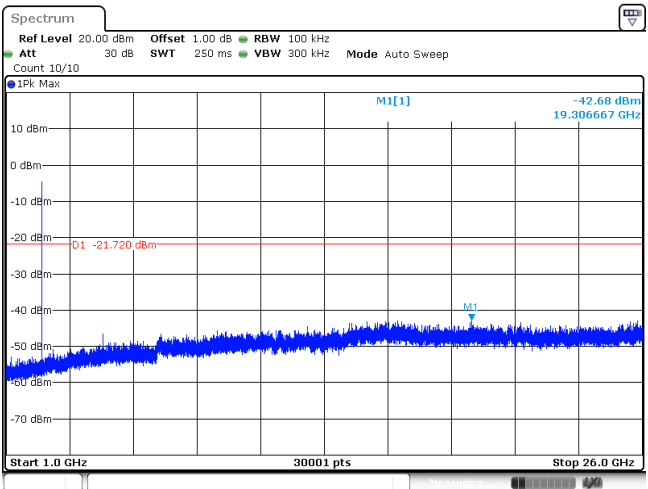
Test Item:	Band edge	Test Rate:	1Mbps																																										
CH00	<p>Marker Table for CH00:</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td>2.40204 GHz</td> <td>-0.67 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-46.08 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-63.55 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.31 GHz</td> <td>-63.51 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.399906 GHz</td> <td>-46.28 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.40204 GHz	-0.67 dBm			M2	1		2.4 GHz	-46.08 dBm			M3	1		2.39 GHz	-63.55 dBm			M4	1		2.31 GHz	-63.51 dBm			M5	1		2.399906 GHz	-46.28 dBm		
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Test Item:	Band edge	Test Rate:	2Mbps																																										
CH00	 <p>Spectrum</p> <p>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>M1[1] -0.78 dBm 2.40204 GHz M2[1] -33.90 dBm 2.40000 GHz D1 -20.780 dBm</p> <p>Start 2.31 GHz 691 pts Stop 2.405 GHz</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>-0.78 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-33.90 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-63.25 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.31 GHz</td> <td>-63.00 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.399906 GHz</td> <td>-37.18 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.40204 GHz	-0.78 dBm			M2	1		2.4 GHz	-33.90 dBm			M3	1		2.39 GHz	-63.25 dBm			M4	1		2.31 GHz	-63.00 dBm			M5	1		2.399906 GHz	-37.18 dBm		
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CH39	 <p>Spectrum</p> <p>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>M1[1] -1.53 dBm 2.480022 GHz M2[1] -47.33 dBm 2.4835000 GHz D1 -21.530 dBm</p> <p>Start 2.478 GHz 691 pts Stop 2.5 GHz</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>2.480022 GHz</td> <td>-1.53 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4835 GHz</td> <td>-47.33 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.5 GHz</td> <td>-62.61 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.484058 GHz</td> <td>-46.31 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.480022 GHz	-1.53 dBm			M2	1		2.4835 GHz	-47.33 dBm			M3	1		2.5 GHz	-62.61 dBm			M4	1		2.484058 GHz	-46.31 dBm									
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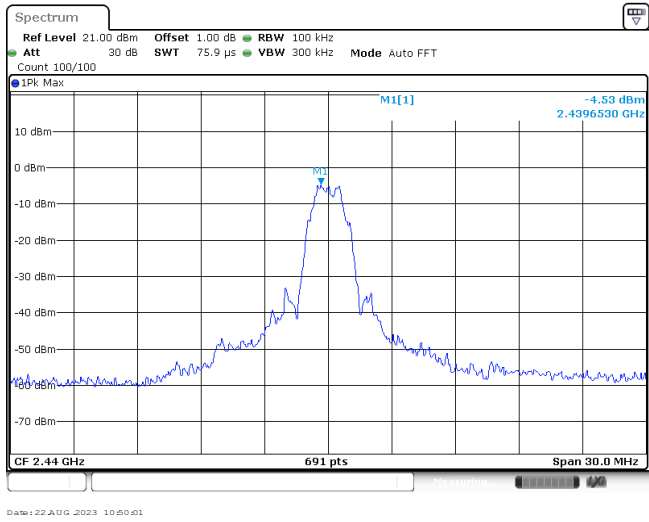
Test Item:	SE	Test Rate:	1Mbps
<p>CH00 Reference level</p>			
<p>CH00 30MHz~1000MHz</p>			
<p>CH00 1GHz~26GHz</p>			

<p>CH19 Reference level</p>	<p>Spectrum 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 IPK Max M1[1] -1.62 dBm 2.4400430 GHz CF 2.44 GHz 691 pts Span 30.0 MHz Date: 22 AUG 2023 10:44:56</p>
<p>CH19 30MHz~1000MHz</p>	<p>Spectrum 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 IPK Max M1[1] -50.28 dBm 903.5040 MHz D1 -21.620 dBm Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 22 AUG 2023 10:45:11</p>
<p>CH19 1GHz~26GHz</p>	<p>Spectrum 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 IPK Max M1[1] -42.55 dBm 25.780000 GHz D1 -21.620 dBm Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 22 AUG 2023 10:45:26</p>

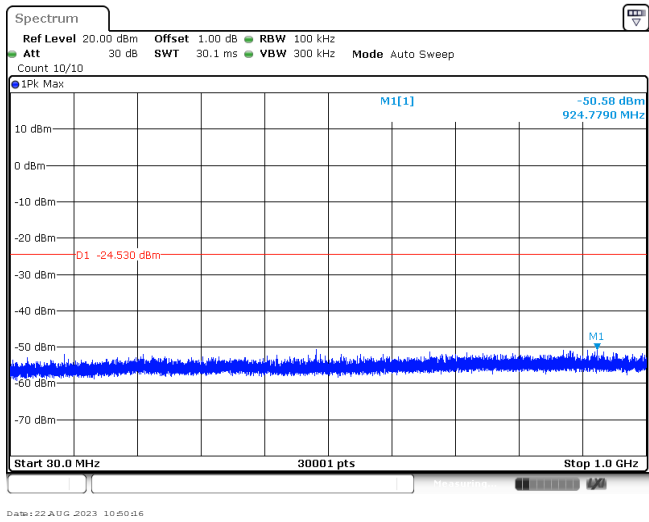
<p>CH39 Reference level</p>	 <p>Spectrum Ref Level 21.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 75.9 μs VBW 300 kHz Mode Auto FFT Count 100/100 IPK Max M1[1] -1.88 dBm 2.4800430 GHz CF 2.48 GHz 691 pts Span 30.0 MHz Date: 22 AUG 2023 10:46:58</p>
<p>CH39 30MHz~1000MHz</p>	 <p>Spectrum Ref Level 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 IPK Max M1[1] -51.12 dBm 917.5370 MHz D1 -21.830 dBm Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 22 AUG 2023 10:46:53</p>
<p>CH39 1GHz~26GHz</p>	 <p>Spectrum 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 IPK Max M1[1] -42.51 dBm 15.785833 GHz D1 -21.830 dBm Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 22 AUG 2023 10:47:08</p>

Test Item:	SE	Test Rate:	2Mbps
<p>CH00 Reference level</p>	 <p>Spectrum 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 1Pk Max -1.72 dBm 2.4019570 GHz CF 2.402 GHz 691 pts Span 30.0 MHz Date: 22 AUG 2023 10:48:18</p>		
<p>CH00 30MHz~1000MHz</p>	 <p>Spectrum 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 1Pk Max -50.79 dBm 899.3980 MHz D1 -21.720 dBm Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 22 AUG 2023 10:48:33</p>		
<p>CH00 1GHz~26GHz</p>	 <p>Spectrum 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 1Pk Max -42.68 dBm 19.306667 GHz D1 -21.720 dBm Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 22 AUG 2023 10:48:40</p>		

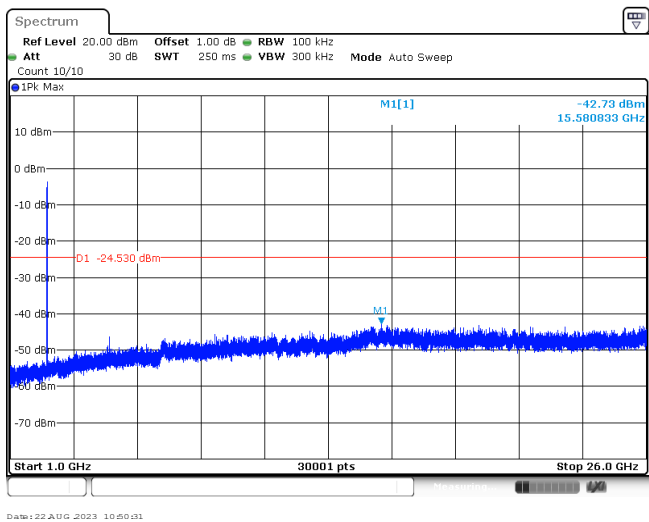
CH19
Reference level



CH19
30MHz~1000MHz



CH19
1GHz~26GHz



<p>CH39 Reference level</p>	
<p>CH39 30MHz~1000MHz</p>	
<p>CH39 1GHz~26GHz</p>	

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