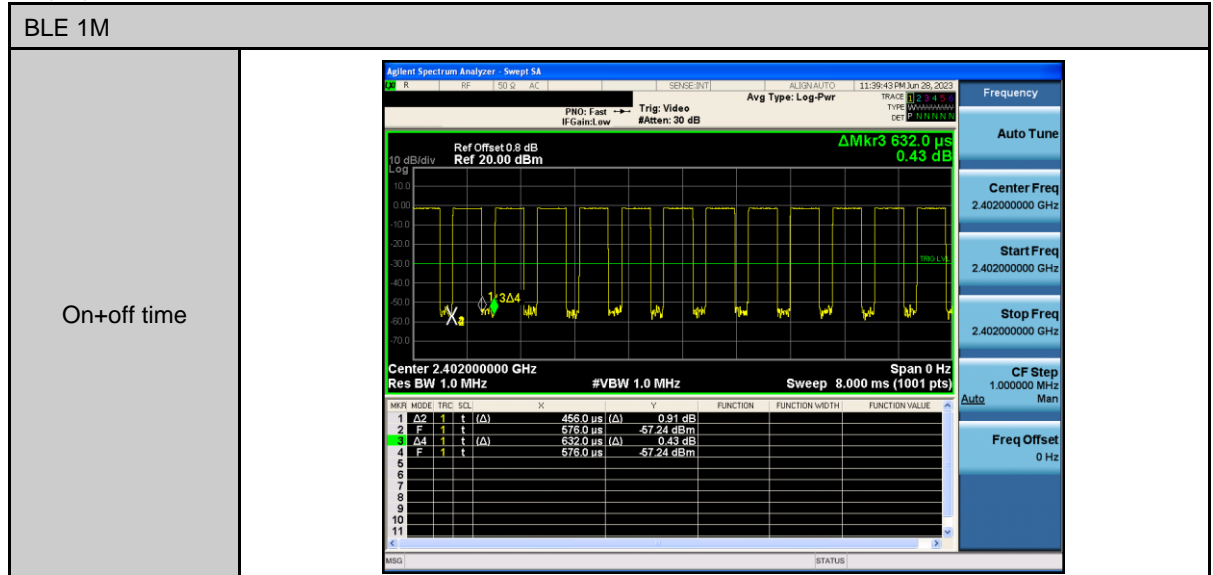


Appendix B. Test Plots

Duty cycle



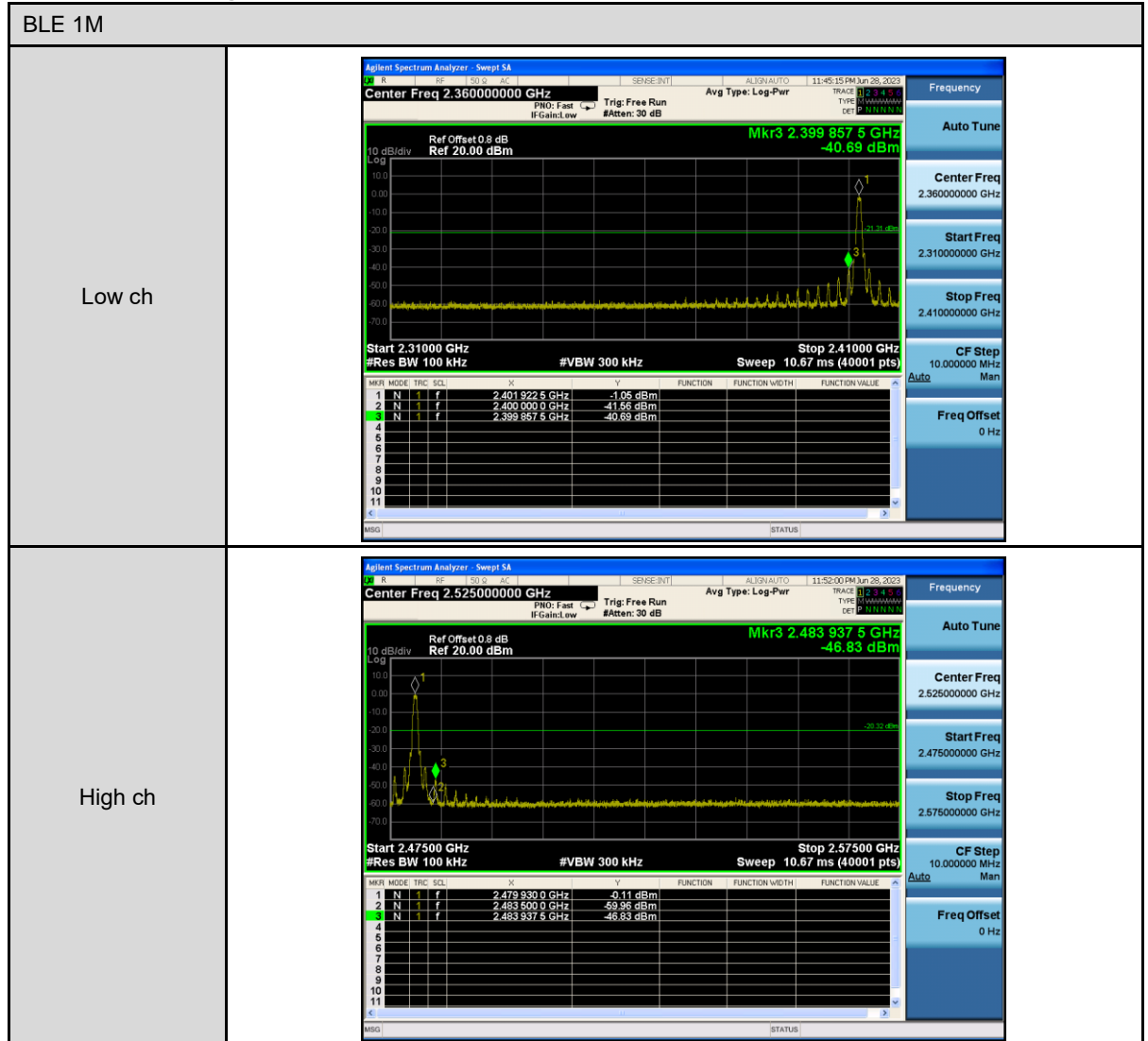
Out of Band Conducted Spurious Emission

BLE 1M																												
<p>Low ch</p>	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 12.51500000 GHz</p> <p>Mkr2 4.8036 GHz -46.70 dBm</p> <p>Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 25.00 GHz Sweep 2.387 s (40001 pts)</p> <table border="1"> <thead> <tr> <th>MKR</th> <th>MODE</th> <th>TRC</th> <th>SCL</th> <th>X</th> <th>Y</th> <th>FUNCTION</th> <th>FUNCTION WIDTH</th> <th>FUNCTION VALUE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N</td> <td>1</td> <td>f</td> <td>2.4022 GHz</td> <td>-1.30 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>N</td> <td>1</td> <td>f</td> <td>4.8036 GHz</td> <td>-46.70 dBm</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.4022 GHz	-1.30 dBm				2	N	1	f	4.8036 GHz	-46.70 dBm			
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<p>Mid ch</p>	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 12.51500000 GHz</p> <p>Mkr2 4.8798 GHz -45.66 dBm</p> <p>Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 25.00 GHz Sweep 2.387 s (40001 pts)</p> <table border="1"> <thead> <tr> <th>MKR</th> <th>MODE</th> <th>TRC</th> <th>SCL</th> <th>X</th> <th>Y</th> <th>FUNCTION</th> <th>FUNCTION WIDTH</th> <th>FUNCTION VALUE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N</td> <td>1</td> <td>f</td> <td>2.4402 GHz</td> <td>-1.32 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>N</td> <td>1</td> <td>f</td> <td>4.8798 GHz</td> <td>-45.66 dBm</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.4402 GHz	-1.32 dBm				2	N	1	f	4.8798 GHz	-45.66 dBm			
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<p>High ch</p>	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 12.51500000 GHz</p> <p>Mkr2 4.9597 GHz -46.59 dBm</p> <p>Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 25.00 GHz Sweep 2.387 s (40001 pts)</p> <table border="1"> <thead> <tr> <th>MKR</th> <th>MODE</th> <th>TRC</th> <th>SCL</th> <th>X</th> <th>Y</th> <th>FUNCTION</th> <th>FUNCTION WIDTH</th> <th>FUNCTION VALUE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N</td> <td>1</td> <td>f</td> <td>2.4802 GHz</td> <td>-0.08 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>N</td> <td>1</td> <td>f</td> <td>4.9597 GHz</td> <td>-46.59 dBm</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.4802 GHz	-0.08 dBm				2	N	1	f	4.9597 GHz	-46.59 dBm			
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Reference level

BLE 1M	
Low ch	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.40200000 GHz</p> <p>Mkr1 2.4019466 GHz -1.31 dBm</p> <p>Center 2.4020000 GHz #Res BW 100 kHz #VBW 300 kHz Span 1.008 MHz Sweep 1.000 ms (1001 pts)</p>
Mid ch	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.44000000 GHz</p> <p>Mkr1 2.4399418 GHz -0.73 dBm</p> <p>Center 2.4400000 GHz #Res BW 100 kHz #VBW 300 kHz Span 1.022 MHz Sweep 1.000 ms (1001 pts)</p>
High ch	<p>Agilent Spectrum Analyzer - Swept SA</p> <p>Center Freq 2.48000000 GHz</p> <p>Mkr1 2.4799416 GHz -0.32 dBm</p> <p>Center 2.4800000 GHz #Res BW 100 kHz #VBW 300 kHz Span 1.007 MHz Sweep 1.000 ms (1001 pts)</p>

Conducted Band Edge



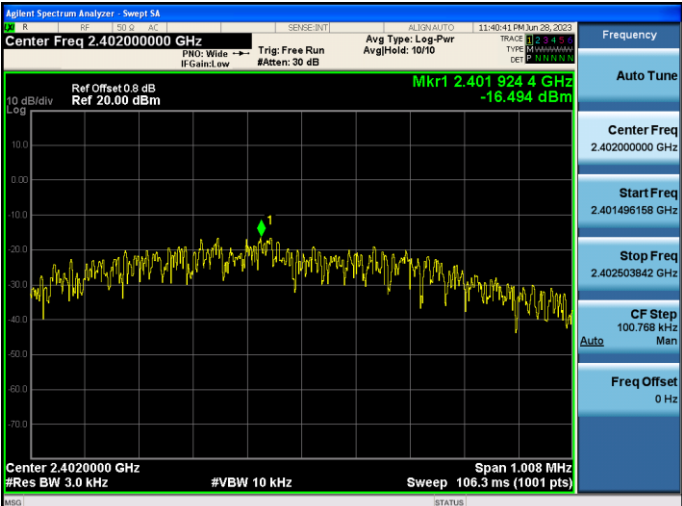
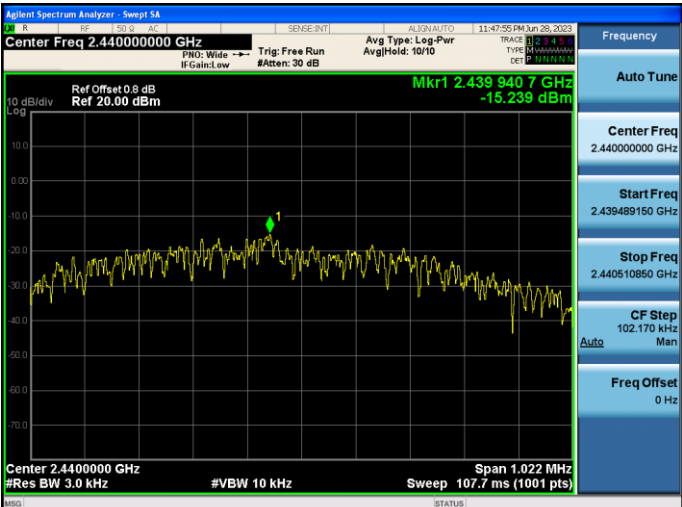
6 dB Bandwidth

BLE 1M	
Low ch	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.402000000 GHz</p> <p>Ref Offset 0.8 dB Ref 20.00 dBm</p> <p>Occupied Bandwidth: 1.0380 MHz</p> <p>Total Power: 5.47 dBm</p> <p>Transmit Freq Error: -52.795 kHz</p> <p>x dB Bandwidth: 671.8 kHz</p>
Mid ch	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.440000000 GHz</p> <p>Ref Offset 0.8 dB Ref 20.00 dBm</p> <p>Occupied Bandwidth: 1.0501 MHz</p> <p>Total Power: 6.01 dBm</p> <p>Transmit Freq Error: -54.206 kHz</p> <p>x dB Bandwidth: 681.1 kHz</p>
High ch	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.480000000 GHz</p> <p>Ref Offset 0.8 dB Ref 20.00 dBm</p> <p>Occupied Bandwidth: 1.0526 MHz</p> <p>Total Power: 6.42 dBm</p> <p>Transmit Freq Error: -55.704 kHz</p> <p>x dB Bandwidth: 671.5 kHz</p>

99 % Occupied Bandwidth

BLE 1M	
<p>Low ch</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.402000000 GHz</p> <p>Occupied Bandwidth: 1.0193 MHz</p> <p>Total Power: 6.06 dBm</p> <p>Transmit Freq Error: -50.622 kHz</p> <p>x dB Bandwidth: 1.222 MHz</p> <p>OBW Power: 99.00 %</p> <p>x dB: -26.00 dB</p>
<p>Mid ch</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.440000000 GHz</p> <p>Occupied Bandwidth: 1.0273 MHz</p> <p>Total Power: 6.67 dBm</p> <p>Transmit Freq Error: -50.774 kHz</p> <p>x dB Bandwidth: 1.230 MHz</p> <p>OBW Power: 99.00 %</p> <p>x dB: -26.00 dB</p>
<p>High ch</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq 2.480000000 GHz</p> <p>Occupied Bandwidth: 1.0291 MHz</p> <p>Total Power: 7.06 dBm</p> <p>Transmit Freq Error: -52.215 kHz</p> <p>x dB Bandwidth: 1.224 MHz</p> <p>OBW Power: 99.00 %</p> <p>x dB: -26.00 dB</p>

Power Density

BLE 1M	
<p>Low ch</p>	
<p>Mid ch</p>	
<p>High ch</p>	