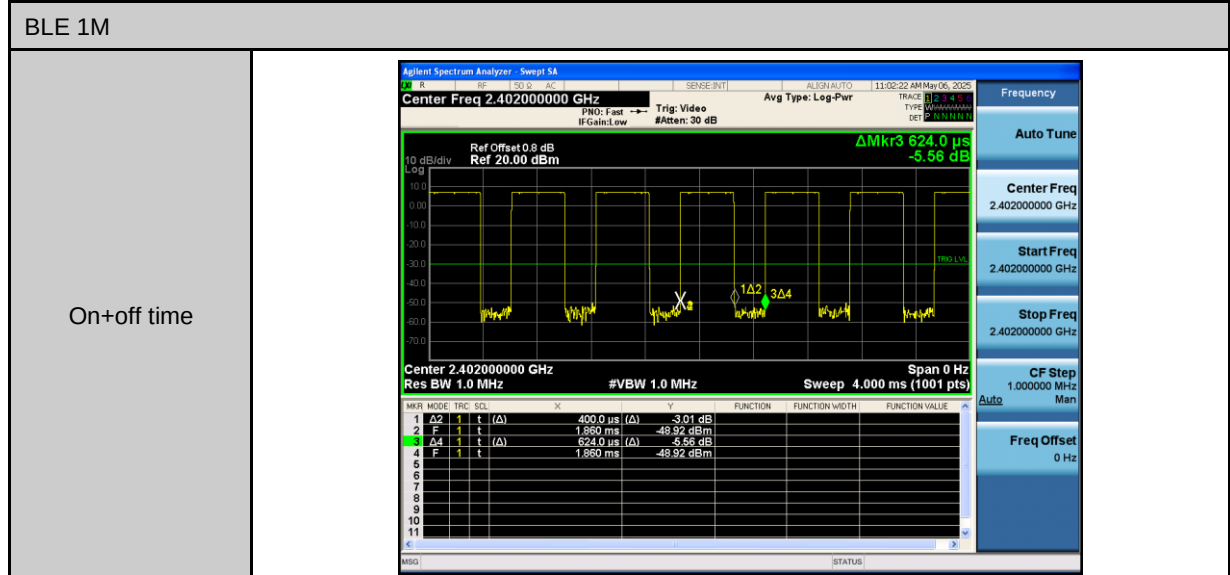


Appendix B. Test Plots

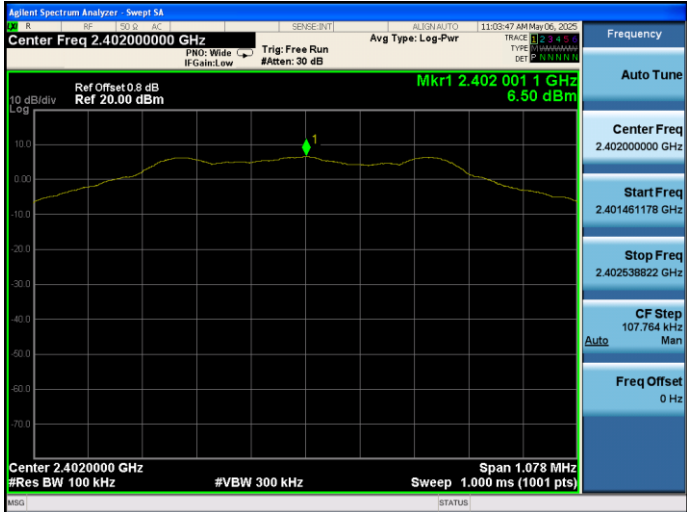
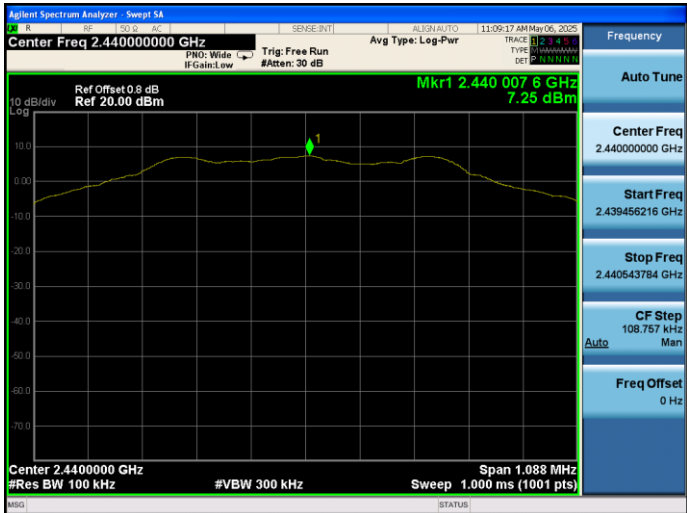
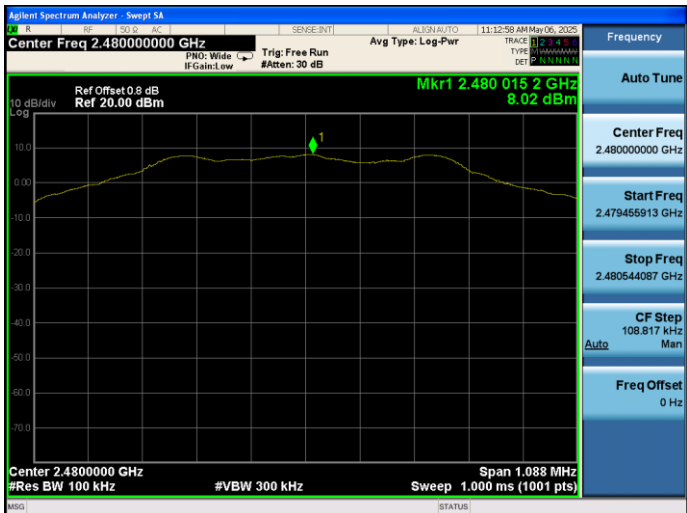
Duty cycle



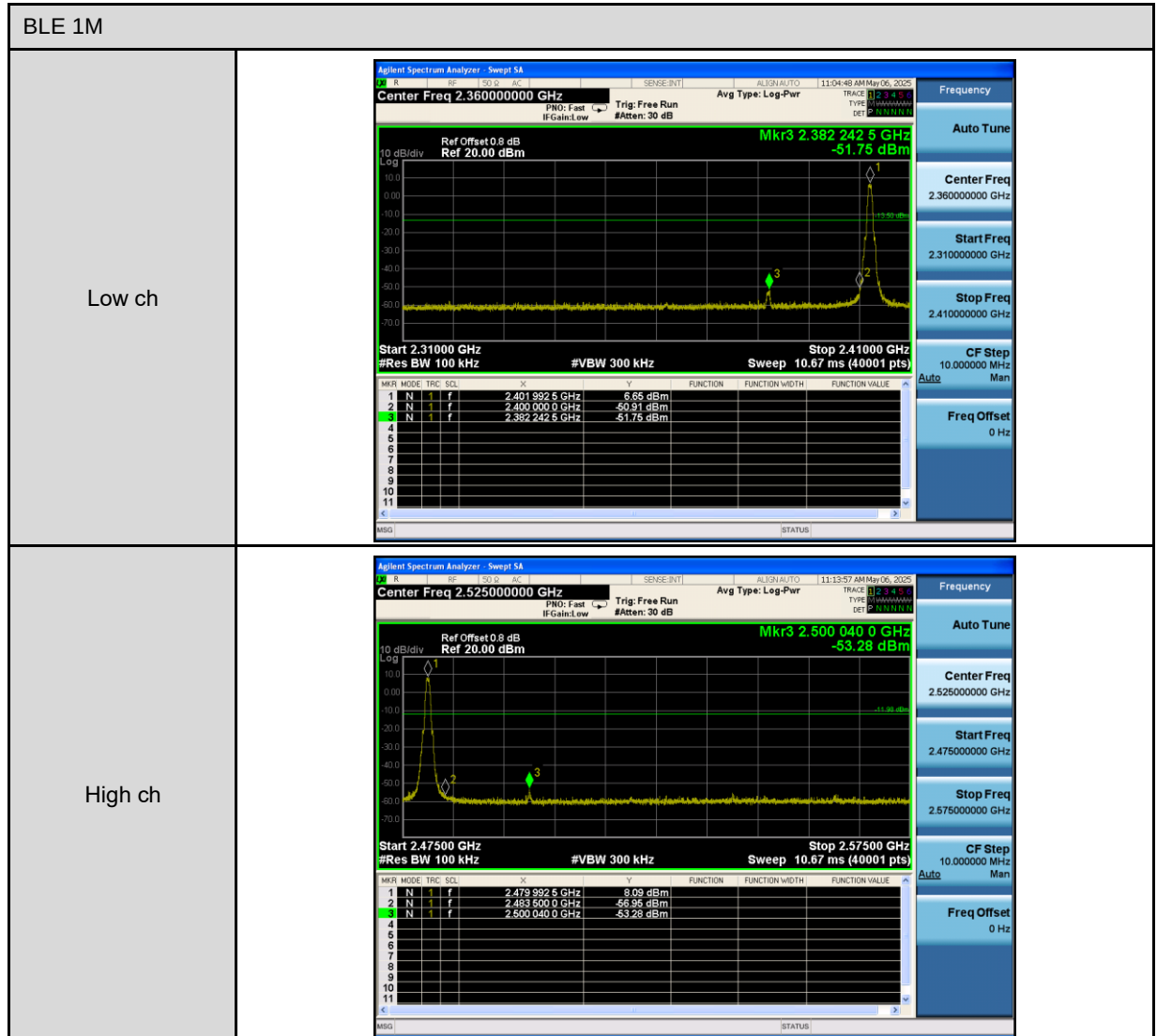
Out of Band Conducted Spurious Emission

BLE 1M																																																																																																													
Low ch	Agilent Spectrum Analyzer - Sweep SA 12.515000000 GHz Center Freq 12.515000000 GHz Center Freq 10 dB/div Log 10.0 0.00 -10.0 -20.0 -30.0 -40.0 -50.0 -60.0 -70.0 Ref Offset 0.8 dB Ref 20.00 dBm 1 2 Mkr2 24.224 7 GHz -47.61 dBm Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.387 s (40001 pts) <table><tr><th>MKR</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr><tr><td>1</td><td>N</td><td>1</td><td>f</td><td>2.402 2 GHz</td><td>6.35 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>24.224 7 GHz</td><td>-47.61 dBm</td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>6</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>11</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> MSG STATUS Frequency Auto Tune Center Freq 12.515000000 GHz Start Freq 30.000000 MHz Stop Freq 25.000000000 GHz CF Step 2.497000000 GHz Auto Man Freq Offset 0 Hz	MKR	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.402 2 GHz	6.35 dBm				2	N	1	f	24.224 7 GHz	-47.61 dBm				3									4									5									6									7									8									9									10									11								
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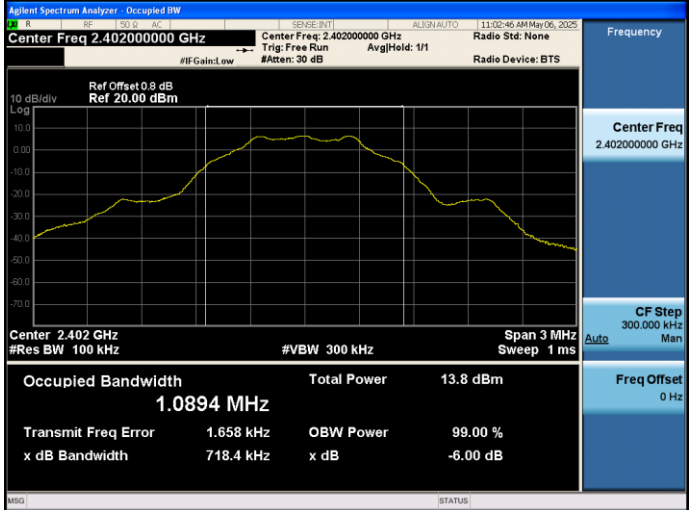
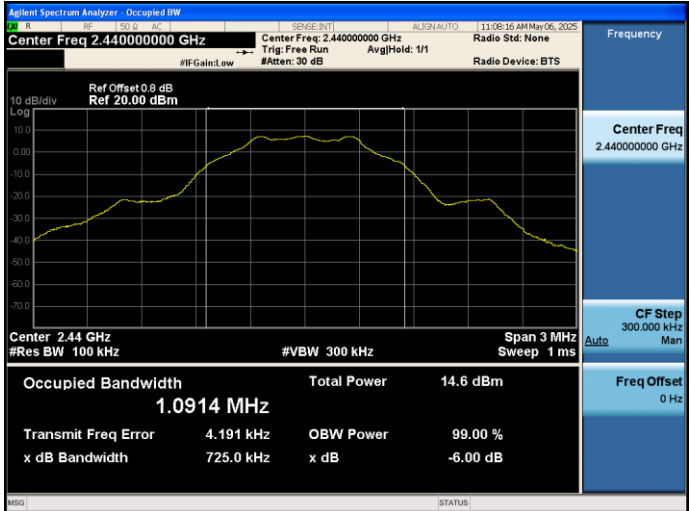
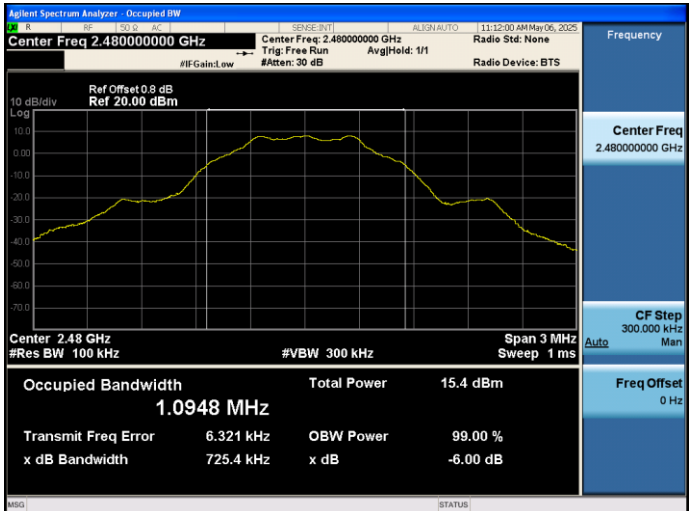
Reference level

BLE 1M	
Low ch	
Mid ch	
High ch	

Conducted Band Edge



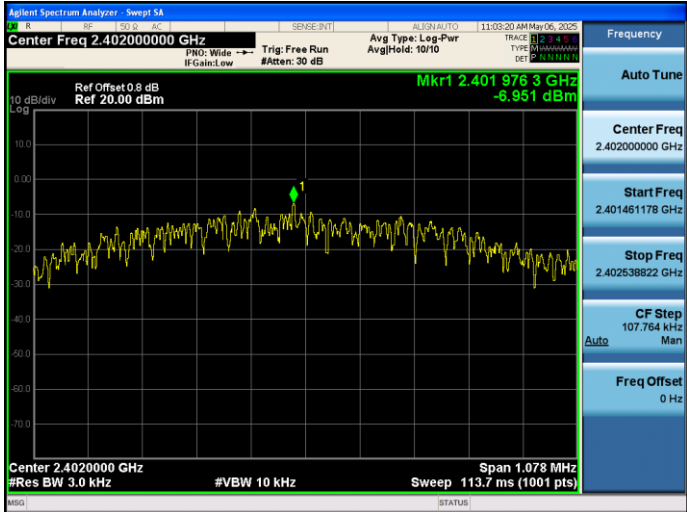
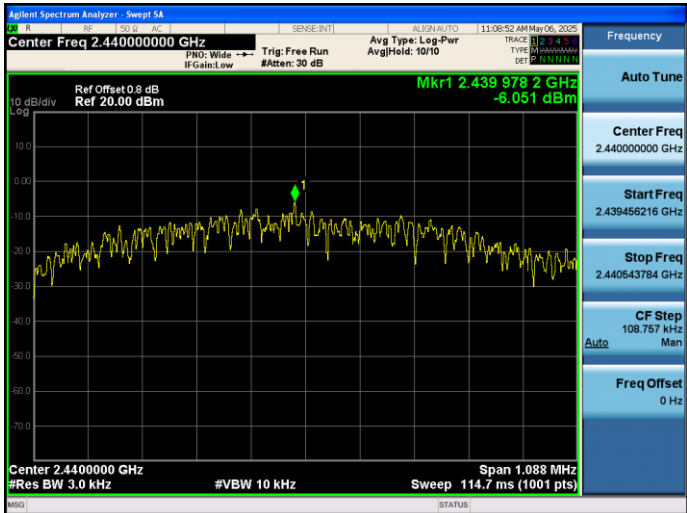
6 dB Bandwidth

BLE 1M	
Low ch	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.402000000 GHz Center Freq: 2.402000000 GHz Trig: Free Run Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Ref Offset 0.8 dB Ref 20.00 dBm Center 2.402 GHz #Res BW 100 kHz #VBW 300 kHz Span 3 MHz Sweep 1 ms Occupied Bandwidth 1.0894 MHz Total Power 13.8 dBm Transmit Freq Error 1.658 kHz OBW Power 99.00 % x dB Bandwidth 718.4 kHz x dB -6.00 dB
Mid ch	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.440000000 GHz Center Freq: 2.440000000 GHz Trig: Free Run Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Ref Offset 0.8 dB Ref 20.00 dBm Center 2.44 GHz #Res BW 100 kHz #VBW 300 kHz Span 3 MHz Sweep 1 ms Occupied Bandwidth 1.0914 MHz Total Power 14.6 dBm Transmit Freq Error 4.191 kHz OBW Power 99.00 % x dB Bandwidth 725.0 kHz x dB -6.00 dB
High ch	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.480000000 GHz Center Freq: 2.480000000 GHz Trig: Free Run Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Ref Offset 0.8 dB Ref 20.00 dBm Center 2.48 GHz #Res BW 100 kHz #VBW 300 kHz Span 3 MHz Sweep 1 ms Occupied Bandwidth 1.0948 MHz Total Power 15.4 dBm Transmit Freq Error 6.321 kHz OBW Power 99.00 % x dB Bandwidth 725.4 kHz x dB -6.00 dB

99 % Occupied Bandwidth

BLE 1M	
Low ch	Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.402000000 GHz Center Freq: 2.402000000 GHz Trig: Free Run Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Ref Offset 0.8 dB Ref 20.00 dBm Center 2.402 GHz #Res BW 30 kHz #VBW 100 kHz Span 3 MHz Sweep 3.2 ms Occupied Bandwidth 1.0655 MHz Total Power 14.0 dBm Transmit Freq Error 2.939 kHz OBW Power 99.00 % x dB Bandwidth 1.274 MHz x dB -26.00 dB
Mid ch	Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.440000000 GHz Center Freq: 2.440000000 GHz Trig: Free Run Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Ref Offset 0.8 dB Ref 20.00 dBm Center 2.44 GHz #Res BW 30 kHz #VBW 100 kHz Span 3 MHz Sweep 3.2 ms Occupied Bandwidth 1.0652 MHz Total Power 14.9 dBm Transmit Freq Error 5.611 kHz OBW Power 99.00 % x dB Bandwidth 1.277 MHz x dB -26.00 dB
High ch	Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.480000000 GHz Center Freq: 2.480000000 GHz Trig: Free Run Avg/Hold: 1/1 Radio Std: None Radio Device: BTS Ref Offset 0.8 dB Ref 20.00 dBm Center 2.48 GHz #Res BW 30 kHz #VBW 100 kHz Span 3 MHz Sweep 3.2 ms Occupied Bandwidth 1.0670 MHz Total Power 15.6 dBm Transmit Freq Error 8.128 kHz OBW Power 99.00 % x dB Bandwidth 1.281 MHz x dB -26.00 dB

Power Density

BLE 1M	
Low ch	
Mid ch	
High ch	