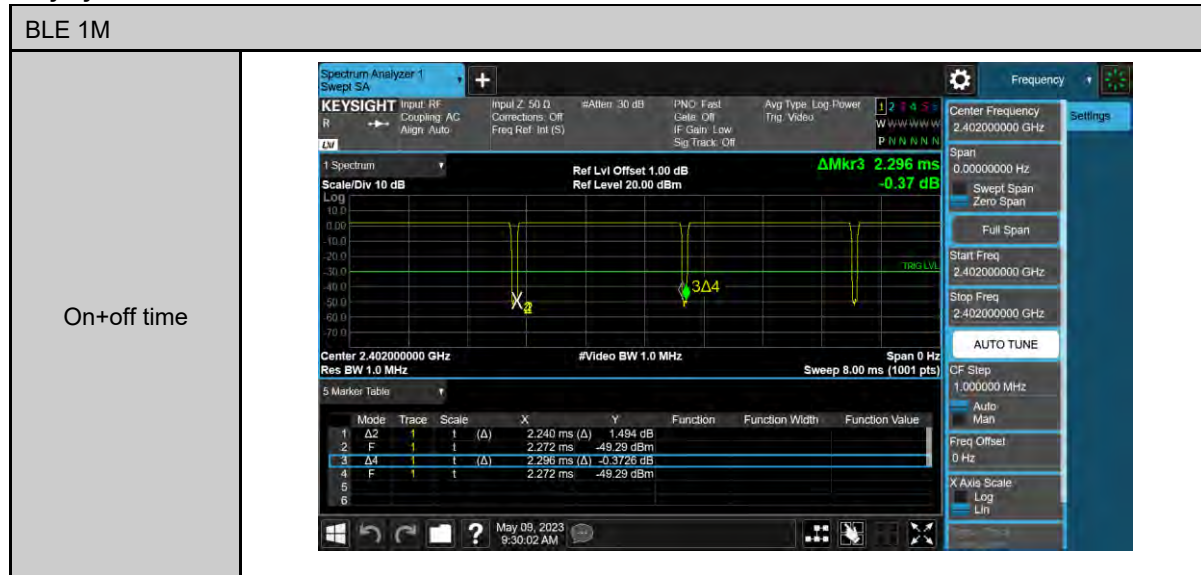


Appendix B. Test Plots

Duty cycle



Out of Band Conducted Spurious Emission

BLE 1M

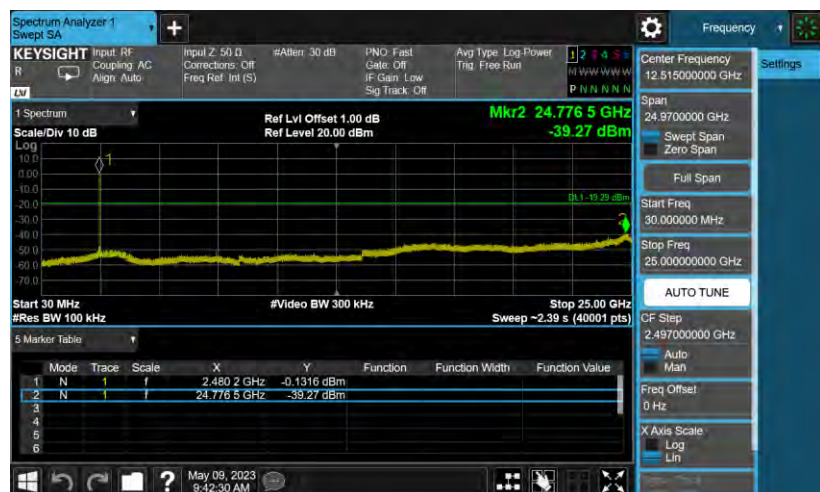
Low ch



Mid ch



High ch



Reference level

BLE 1M Low ch	
Mid ch	
High ch	

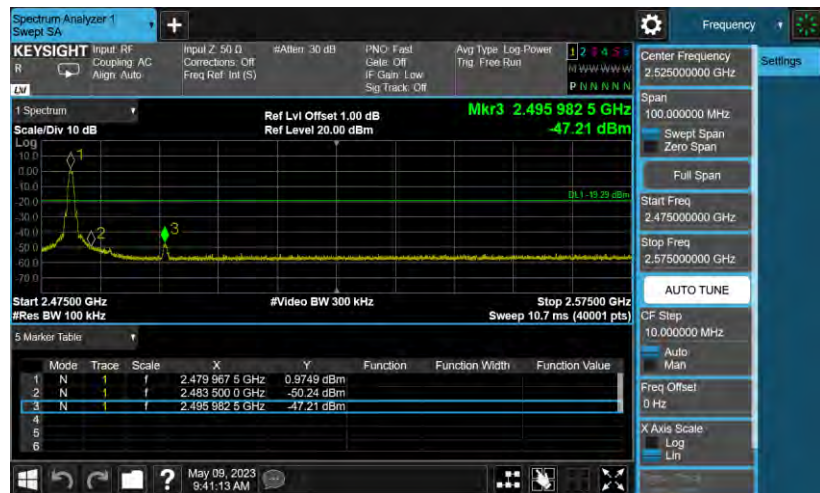
Conducted Band Edge

BLE 1M

Low ch



High ch



6 dB Bandwidth

BLE 1M

Low ch



Mid ch



High ch



99 % Occupied Bandwidth

BLE 1M	
Low ch	 Center Frequency: 2.40200000 GHz Span: 3.0000 MHz CF Step: 300.000 kHz Freq Offset: 0 Hz Occupied Bandwidth: 1.0652 MHz Total Power: 10.1 dBm Transmit Freq Error: -17.969 kHz % of OBW Power: 99.0 %
Mid ch	 Center Frequency: 2.44000000 GHz Span: 3.0000 MHz CF Step: 300.000 kHz Freq Offset: 0 Hz Occupied Bandwidth: 1.0753 MHz Total Power: 9.53 dBm Transmit Freq Error: -13.336 kHz % of OBW Power: 99.0 %
High ch	 Center Frequency: 2.48000000 GHz Span: 3.0000 MHz CF Step: 300.000 kHz Freq Offset: 0 Hz Occupied Bandwidth: 1.0727 MHz Total Power: 8.80 dBm Transmit Freq Error: -19.029 kHz % of OBW Power: 99.0 %

BLE 1M

Spectrum Analyzer 1
Swept SA

KEYSIGHT Input: RF Coupling: AC Align: Auto

Input Z: 50 Ω #Att: 30 dB PNO: Best Wide Gate: Off IF Gain: Low Sp Track: Off

Avg Type: Log Power Avg/Hold: 10/10 Tag: Free Run

Center Frequency: 2.40200000 GHz

Span: 1.01036000 MHz

Start Freq: 2.401494820 GHz

Stop Freq: 2.402505180 GHz

Auto Tune

CF Step: 101.036 kHz

Freq Offset: 0 Hz

X Axis Scale: Log Lin

Signal Track

1 Spectrum

Scale/Div 10 dB

Log

Ref Lvl Offset 1.00 dB

Ref Level 20.00 dBm

Mkr1 2.401 979 8 GHz -11.10 dBm

Center 2.4020000 GHz

#Res BW 3.0 kHz

#Video BW 10 kHz

Span 1.010 MHz

Sweep 107 ms (1001 pts)

May 09, 2023 9:31:37 AM

Spectrum Analyzer 1
Swept SA

KEYSIGHT Input: RF Coupling: AC Align: Auto

Input Z: 50 Ω #After: 30 dB PNO: Best Wide Gate: Off Avg Tpe: Log Power Avg/Hold: 10/10 Tag: Free Run

Corrections: Off Freq Ref: Int (S) IF Gain: Low Sp Track: Off

Center Frequency: 2.44000000 GHz

Span: 1.05915000 MHz

Start Freq: 2.439470422 GHz

Stop Freq: 2.440529578 GHz

Auto Tune

CF Step: 105.916 kHz

Freq Offset: 0 Hz

X Axis Scale: Log Lin

Signal Track

1 Spectrum

Scale/Div 10 dB

Log

Ref Lvl Offset 1.00 dB

Ref Level 20.00 dBm

Mkr1 2.439 972 5 GHz -11.19 dBm

Center 2.4400000 GHz

#Res BW 3.0 kHz

#Video BW 10 kHz

Span 1.059 MHz

Sweep 112 ms (1001 pts)

May 09, 2023 9:36:11 AM

The screenshot displays a Spectrum Analyzer interface. At the top, the title bar reads "Spectrum Analyzer 1" and "Swept SA". Below this, the "KEYSTONE" logo is visible. The main display area shows a spectrum plot with a yellow trace. A peak is labeled "Mkr1 2.479 975 6 GHz" with a level of "-11.64 dBm". The plot has a scale of "Scale/Div 10 dB" and a reference level of "Ref Level 20.00 dBm". The frequency range is "Center 2.4800000 GHz" and "Span 1.062 MHz". The resolution bandwidth is "#Res BW 3.0 kHz" and the video bandwidth is "#Video BW 10 kHz". The sweep time is "Sweep 112 ms (1001 pts)". On the right side, there are control panels for "Frequency" (Center Frequency: 2.48000000 GHz), "Span" (Span: 1.06237200 MHz), "Start Freq" (2.479468814 GHz), "Stop Freq" (2.480531186 GHz), "Auto Tune", "CF Step" (106.237 kHz), "Auto Man", "Freq Offset" (0 Hz), "X Axis Scale" (Log, Lin), and "Signal Track". The bottom status bar shows the date and time: "May 09, 2023 9:39:28 AM".