

Appendix B. Test Plots

Duty cycle



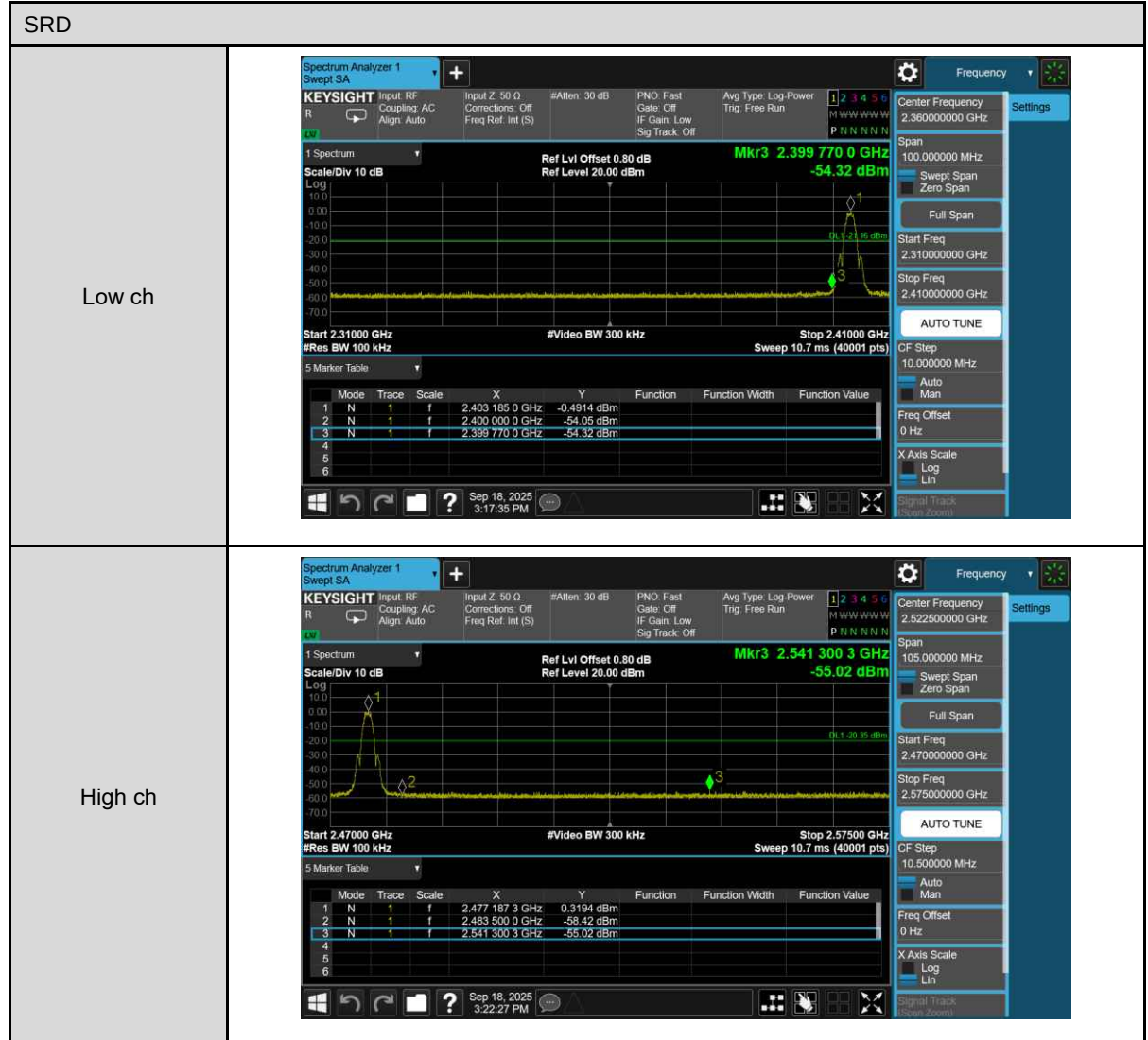
Out of Band Conducted Spurious Emission

SRD																																																																
Low ch	Spectrum Analyzer 1 Sweep SA KEYSIGHT Input: RF Coupling: AC Align: Auto Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) #Atten: 30 dB PNO: Fast Gate: Off IF Gain: Low Sig Track: Off Avg Type: Log-Power Trig: Free Run 1 2 3 4 5 6 M WWW WWW W P N N N N N 1 Spectrum Scale/Div 10 dB Log Ref Lvl Offset 0.80 dB Ref Level 20.00 dBm Mkr2 24.732 8 GHz -41.19 dBm OH 1 -21.36 dBm Start 30 MHz #Res BW 100 kHz #Video BW 300 kHz Stop 25.00 GHz Sweep ~2.39 s (40001 pts) 5 Marker Table <table><thead><tr><th></th><th>Mode</th><th>Trace</th><th>Scale</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>24.028 GHz</td><td>-1.624 dBm</td><td></td><td></td><td></td></tr><tr><td>2</td><td>N</td><td>1</td><td>f</td><td>24.732 8 GHz</td><td>-41.19 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></tbody></table> Sep 18, 2025 3:18:11 PM Frequency Center Frequency 12.515000000 GHz Span 24.97000000 GHz Sweep Span Zero Span Full Span Start Freq 30.0000000 MHz Stop Freq 25.000000000 GHz AUTO TUNE CF Step 2.497000000 GHz Auto Man Freq Offset 0 Hz X Axis Scale Log Lin Signal Track Scope Zoom		Mode	Trace	Scale	X	Y	Function	Function Width	Function Value	1	N	1	f	24.028 GHz	-1.624 dBm				2	N	1	f	24.732 8 GHz	-41.19 dBm				3									4									5									6								
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Reference level

SRD	
Low ch	 Center Frequency: 2.4030000 GHz Span: 2.0898800 MHz Start Freq: 2.401955056 GHz Stop Freq: 2.404044944 GHz Mkr1: 2.403196 4 GHz Ref Lvl Offset: 0.80 dB Ref Level: 20.00 dBm Mkr1: -1.16 dBm
Mid ch	 Center Frequency: 2.4410000 GHz Span: 2.1054800 MHz Start Freq: 2.439947256 GHz Stop Freq: 2.442052744 GHz Mkr1: 2.441191 6 GHz Ref Lvl Offset: 0.80 dB Ref Level: 20.00 dBm Mkr1: -0.77 dBm
High ch	 Center Frequency: 2.4770000 GHz Span: 2.0974700 MHz Start Freq: 2.475951263 GHz Stop Freq: 2.478048737 GHz Mkr1: 2.477184 6 GHz Ref Lvl Offset: 0.80 dB Ref Level: 20.00 dBm Mkr1: -0.35 dBm

Conducted Band Edge



6 dB Bandwidth

SRD	
Low ch	 Keysight Spectrum Analyzer 1 screenshot for Low channel. The display shows a spectrum plot with a peak at approximately 2.403 GHz. The metrics table indicates an Occupied Bandwidth of 2.0765 MHz, Total Power of 8.85 dBm, and a Transmitt Freq Error of 25.445 kHz. The video bandwidth is 300.00 kHz and the resolution bandwidth is 100.00 kHz.
Mid ch	 Keysight Spectrum Analyzer 1 screenshot for Mid channel. The display shows a spectrum plot with a peak at approximately 2.441 GHz. The metrics table indicates an Occupied Bandwidth of 2.0865 MHz, Total Power of 9.25 dBm, and a Transmitt Freq Error of 25.410 kHz. The video bandwidth is 300.00 kHz and the resolution bandwidth is 100.00 kHz.
High ch	 Keysight Spectrum Analyzer 1 screenshot for High channel. The display shows a spectrum plot with a peak at approximately 2.477 GHz. The metrics table indicates an Occupied Bandwidth of 2.0842 MHz, Total Power of 9.65 dBm, and a Transmitt Freq Error of 26.026 kHz. The video bandwidth is 300.00 kHz and the resolution bandwidth is 100.00 kHz.

99 % Occupied Bandwidth

SRD	
Low ch	 Keysight Spectrum Analyzer 1 Occupied BW Center Frequency: 2.40300000 GHz Span: 6.0000 MHz CF Step: 600.000 kHz Freq Offset: 0 Hz Scale/Div: 10.0 dB Ref Lvl Offset: 0.80 dB Ref Value: 20.00 dBm Center: 2.403000 GHz #Res BW: 30.000 kHz #Video BW: 100.00 kHz Span: 6 MHz Sweep: 6.33 ms (1001 pts) Occupied Bandwidth: 2.1042 MHz Total Power: 8.34 dBm Transmit Freq Error: 34.557 kHz % of OBW Power: 99.00 % x dB Bandwidth: 2.644 MHz x dB Sep 18, 2025 3:16:26 PM
Mid ch	 Keysight Spectrum Analyzer 1 Occupied BW Center Frequency: 2.44100000 GHz Span: 6.0000 MHz CF Step: 600.000 kHz Freq Offset: 0 Hz Scale/Div: 10.0 dB Ref Lvl Offset: 0.80 dB Ref Value: 20.00 dBm Center: 2.441000 GHz #Res BW: 30.000 kHz #Video BW: 100.00 kHz Span: 6 MHz Sweep: 6.33 ms (1001 pts) Occupied Bandwidth: 2.1117 MHz Total Power: 8.76 dBm Transmit Freq Error: 34.720 kHz % of OBW Power: 99.00 % x dB Bandwidth: 2.643 MHz x dB Sep 18, 2025 3:18:00 PM
High ch	 Keysight Spectrum Analyzer 1 Occupied BW Center Frequency: 2.47700000 GHz Span: 6.0000 MHz CF Step: 600.000 kHz Freq Offset: 0 Hz Scale/Div: 10.0 dB Ref Lvl Offset: 0.80 dB Ref Value: 20.00 dBm Center: 2.477000 GHz #Res BW: 30.000 kHz #Video BW: 100.00 kHz Span: 6 MHz Sweep: 6.33 ms (1001 pts) Occupied Bandwidth: 2.1097 MHz Total Power: 9.15 dBm Transmit Freq Error: 35.064 kHz % of OBW Power: 99.00 % x dB Bandwidth: 2.641 MHz x dB Sep 18, 2025 3:20:57 PM

Power Density

SRD	
Low ch	 Keysight Spectrum Analyzer 1 Sweep SA Input: RF Coupling: AC Align: Auto Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) #Atten: 30 dB IPNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off Avg Type: Log-Power Avg/Hold: 10/10 Trig: Free Run Center Frequency: 2.40300000 GHz Span: 2.0898800 MHz Start Freq: 2.401955056 GHz Stop Freq: 2.404044944 GHz AUTO TUNE CF Step: 208.988 kHz Freq Offset: 0 Hz X Axis Scale: Log Signal Track: (Span Zoom) Scale/Div 10 dB Ref Lvl Offset 0.80 dB Ref Level 20.00 dBm Mkr1 2.403 008 4 GHz -20.42 dBm Center 2.403000 GHz #Res BW 3.0 kHz #Video BW 10 kHz Span 2.090 MHz Sweep 220 ms (1001 pts) Sep 18, 2025 3:16:34 PM
Mid ch	 Keysight Spectrum Analyzer 1 Sweep SA Input: RF Coupling: AC Align: Auto Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) #Atten: 30 dB IPNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off Avg Type: Log-Power Avg/Hold: 10/10 Trig: Free Run Center Frequency: 2.44100000 GHz Span: 2.1054800 MHz Start Freq: 2.439947256 GHz Stop Freq: 2.442052744 GHz AUTO TUNE CF Step: 210.548 kHz Freq Offset: 0 Hz X Axis Scale: Log Signal Track: (Span Zoom) Scale/Div 10 dB Ref Lvl Offset 0.80 dB Ref Level 20.00 dBm Mkr1 2.440 949 5 GHz -20.08 dBm Center 2.441000 GHz #Res BW 3.0 kHz #Video BW 10 kHz Span 2.105 MHz Sweep 221 ms (1001 pts) Sep 18, 2025 3:18:07 PM
High ch	 Keysight Spectrum Analyzer 1 Sweep SA Input: RF Coupling: AC Align: Auto Input Z: 50 Ω Corrections: Off Freq Ref: Int (S) #Atten: 30 dB IPNO: Best Wide Gate: Off IF Gain: Low Sig Track: Off Avg Type: Log-Power Avg/Hold: 10/10 Trig: Free Run Center Frequency: 2.47700000 GHz Span: 2.09747400 MHz Start Freq: 2.475951263 GHz Stop Freq: 2.478048737 GHz AUTO TUNE CF Step: 209.747 kHz Freq Offset: 0 Hz X Axis Scale: Log Signal Track: (Span Zoom) Scale/Div 10 dB Ref Lvl Offset 0.80 dB Ref Level 20.00 dBm Mkr1 2.477 134 2 GHz -19.60 dBm Center 2.477000 GHz #Res BW 3.0 kHz #Video BW 10 kHz Span 2.097 MHz Sweep 221 ms (1001 pts) Sep 18, 2025 3:21:06 PM