PRODUCT BRIEF

OSCILLOSCOPE PROBING SOLUTIONS

DisplayPort Chassis Probe

Transparent Probing for DisplayPort Links

Analyze Live DisplayPort Traffic Without Affecting Waveform Shape

Introspect Technology's DisplayPort Chassis Probe provides an innovative solution enabling accurate waveform probing for DisplayPort streams connected through cables. The primary signal path provides a completely passive connection between a DisplayPort source and a DisplayPort sink. The active probing path uses a proprietary sensing technology to create a replica of the source signal for analyzing live traffic. Both analog signal analysis and complete protocol analysis can be performed without impacting the link training function between the source and the sink device.

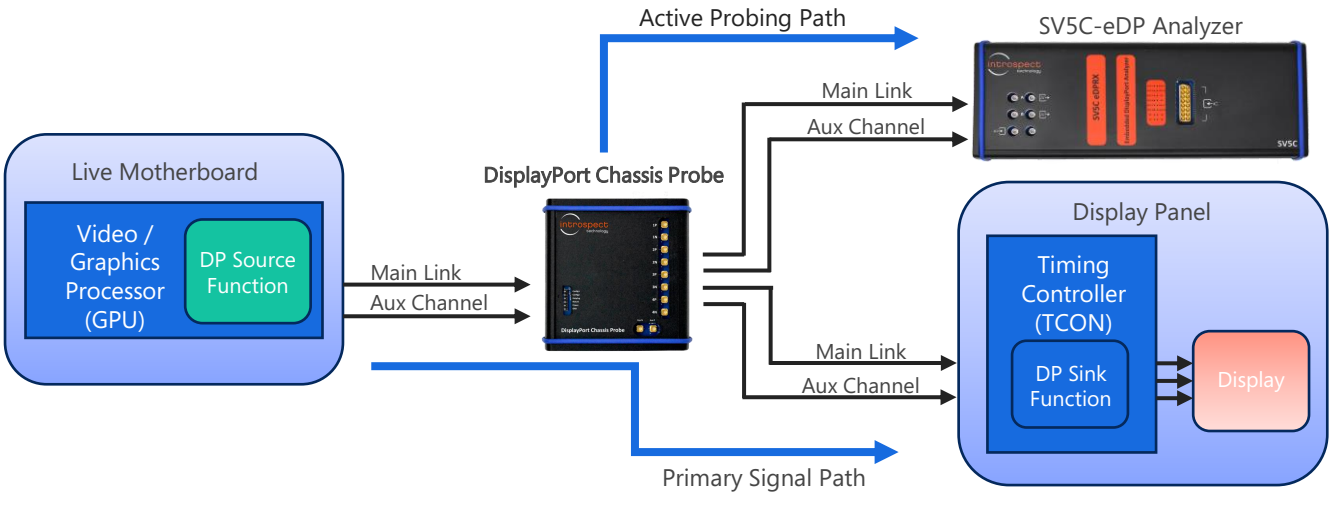
KEY FEATURES:

- **Data Rates:** up to 10 Gbps (limited by the standard DisplayPort connector performance)
- **Lane Count:** 4 Main Link lanes plus the Auxiliary Channel (AUX)
- **Test Points:** includes test points for the hot-plug detect signal and other GPIOs used by a typical DisplayPort implementation

KEY BENEFITS:

- **Uninterrupted Link Training:** With a passive through path, the source and sink devices train according to the real system characteristics and not the probe
- **Replacement for Individual Oscilloscope Active Probes:** With a high impedance and linear response on the active probing path, this solution is ideal for real-time oscilloscope analysis

Typical Application: Debugging a Live DisplayPort System

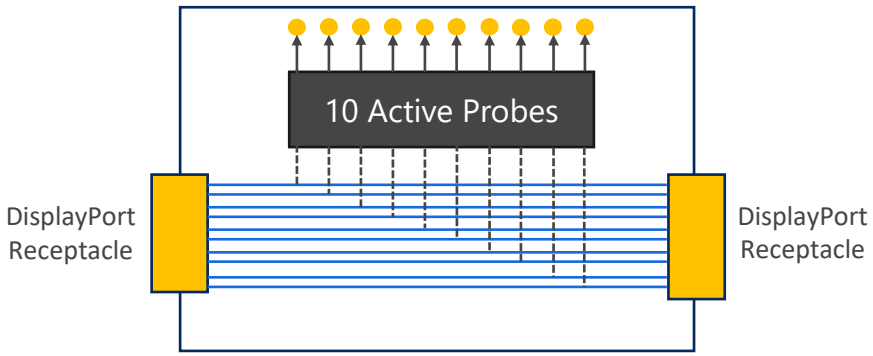


Using the DisplayPort Chassis Probe to connect an SV5C-eDP Analyzer to a live system

Specifications

PARAMETER	VALUE	DESCRIPTION
Source-Side Through-Path Connector Type	Standard DisplayPort Receptacle	Receives a standard DisplayPort cable. To a video source, the DisplayPort Chassis Probe appears as a monitor
Sink-Side Through-Path Connector Type	Standard DisplayPort Receptacle	Connects to a standard DisplayPort cable. To a video sink, the DisplayPort Chassis Probe appears as a graphics card
Active Probe Connector Type	SMP	
Test Point Connector Type	0.1" Male	Used for monitoring HPD and other signals
Through-Path Signal Risetime	65 ps	20%-80% specification
Active Probe Path Signal Risetime	65 ps	20%-80% specification
Active Probe Path Linearity	50 dB	Spurious free dynamic range measured at 5 MHz and across entire voltage range
Active Probe Input Voltage Range	-0.8 V to 1.2 V	

Block Diagram



Transparent probing capability is enabled by passive traces and proprietary active probe technology