

C-SERIES

SV5C-eDP Analyzer

Embedded DisplayPort Analyzer



Complete Analysis of eDP v1.5 and DP v2.1 Systems in HBR

The SV5C-eDP Embedded DisplayPort Analyzer is an ultra-portable, high-performance instrument capable of analyzing traffic for Embedded DisplayPort and DisplayPort applications. The SV5C-eDP Analyzer may be used as either a DisplayPort sink device (for source testing) or as a probing solution for capturing protocol traffic on an Embedded DisplayPort bus. The Analyzer can capture live traffic, decode symbols, detect display parameters, and extract full video frames. All these functions are integrated into Introspect’s award-winning software environment, Pinetree.

KEY FEATURES:

- **Protocol:** supports Embedded DisplayPort (eDP) up to v1.5 and DisplayPort (DP) up to v2.1 in HBR
- **Supported Data Rates:** up to 10.1 Gbps, including bus probing applications with Introspect PV2 active probes
- **Lane Count:** configurable from 1 to 4 lanes (ML1 to ML4) plus auxiliary channel (AUX)

KEY BENEFITS:

- **Data Capture:** extensive triggering functions and consecutive frame capture capabilities
- **Diagnostics:** full video frame extraction including standard event and symbol tables for visual analysis and data collection

Typical Application: Probing of eDP-Based Designs



GENERAL SPECIFICATIONS

PARAMETER	VALUE	UNITS	DESCRIPTION
Application/Protocol			
Physical Layer Interface	eDP and DP		Support for eDP to version 1.5 Support for DP to version 2.1 in HBR
Ports			
Number of Analyzer Lanes	5		ML1 to ML4 AUX Channel (bidirectional)
Number of GPIO pins	6		Programmable as external trigger input or flag output pins
Number of dedicated reference clock inputs	1		
Number of dedicated reference clock outputs	1		
PC connections for Pinetree control	1		USB2 and USB3
Data Rates and Reference Clocks			
Minimum Data Rate	80	Mbps	Per Lane
Maximum Data Rate	10.1	Gbps	Per Lane
Minimum External Input Ref Clock	10	MHz	
Maximum External Input Ref Clock	250	MHz	
Minimum External Output Ref	10	MHz	
Maximum External Output Ref	500	MHz	

The SV5C-eDP Analyzer decodes symbols, detects display parameters, and automatically extracts video frames

Selection tabs for
Burst, Packet or
Frame views

Frames are
enumerated, and
timestamps are
shown

Hyperlinks to
Packets tab

The screenshot shows the 'DP DataCapture: FW 89-0056 / dataCapture1' window. At the top, there are three tabs: 'Bursts', 'Packets', and 'Frames'. The 'Frames' tab is selected, displaying a table with columns: ID, First Packet: Time (µs), First Packet#, Last Packet: Time (µs), Last Packet#, Effective FrameRate, Pixel Format, Image Width, Image Height, Scrambled, Seed, Mode, and PSR Enable. The table contains four rows of data, with the second row (ID 2) highlighted in blue. Below the table, there are navigation buttons: 'Prev', 'Next', 'First', and 'Last'. To the left of the image viewer, there is a 'Details' panel showing information for 'Frame_2.png', including size (2.28 MB), width (1920 pixels), height (1080 pixels), and color depth (48). The image viewer itself shows a tiger lying in the snow. To the right of the image, there is a text box that says 'Images automatically reconstructed and saved'.

Built-in viewers are provided for easy visual analysis and data collection through Pinetree. Above is showing the Bursts tab of the data capture viewer.