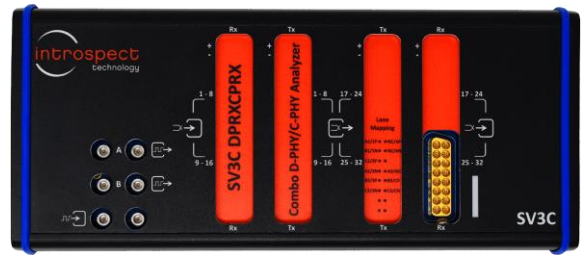


SV3C-DPRXCPRX

Combo MIPI D-PHY/C-PHY Analyzer



All-in-One Protocol Analyzer for Camera and Display Interface Links

The SV3C-DPRXCPRX Combo MIPI D-PHY/C-PHY Analyzer is an ultra-portable, high-performance instrument for testing and validating MIPI-based transmitters as well as probing live systems. The SV3C-DPRXCPRX is ideal for the capture and analysis of MIPI transmitters used in cameras, displays, and other devices. It includes integrated LP and HS receivers, dynamic termination, and a range of sophisticated features including bus turn-around (BTA) and compression picture parameter set (PPS) handling. The SV3C-DPRXCPRX is ideal for both MIPI physical layer transmitter port testing and full protocol layer testing.

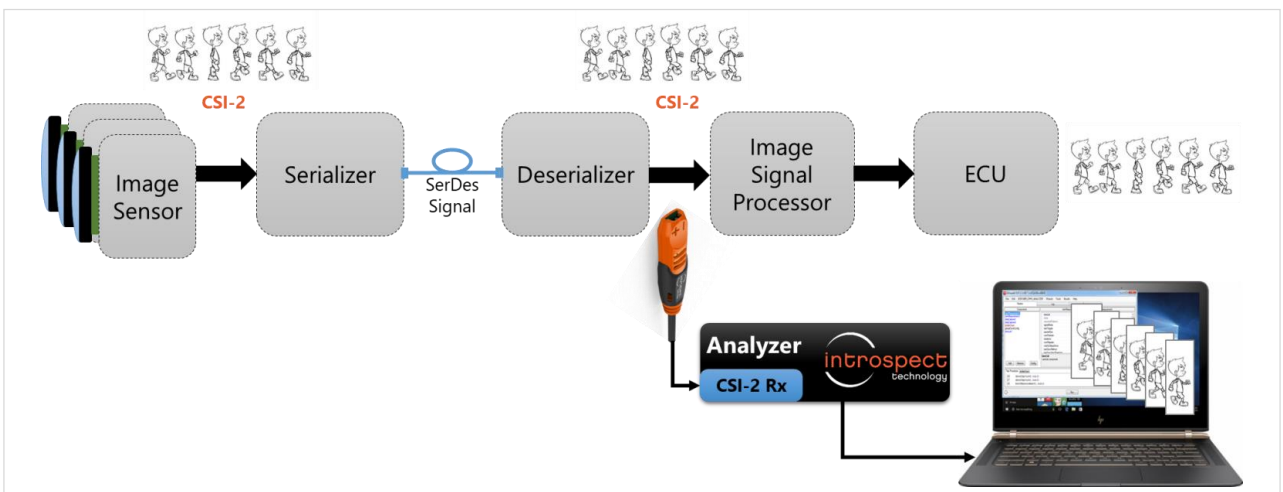
KEY FEATURES:

- **Wide data rate support:** fully continuous range from 80 Mbps to 3.5 Gbps (D-PHY) / 3.5 Gbps (C-PHY)
- **High resolution timing analysis:** physical layer and protocol layer events are recorded and analyzed for conformance
- **Waveform measurement and analysis:** verify signal integrity within a live in-system environment
- **Hardware CRC and image checking:** unlimited counting durations

KEY BENEFITS:

- **Future proof:** wide data rate coverage ensures that the same instrument can cover many product variants and design generations
- **Self-contained:** an all-in-one system reduces bench space and helps create a portable test and measurement environment; the SV3C integrates multiple tools into one
- **Automated:** scripting capability is ideal for debug tasks, physical-layer and protocol-layer conformance testing, and full-fledged production screening of devices and system modules.

Typical Application: Automotive Camera System Test and Debug



Transmitter Parameters

Receiver Parameter	Description		Benefit
	D-PHY	C-PHY	
Number of Differential Receivers	4 Data + 1 Clock	4 Trios	Flexible configuration and coverage for multi-lane applications
HS Differential Detectable / Allowable Voltage Swing	90 – 600 mV	90 – 500 mV	Coverage for D-PHY and C-PHY Transmitter CTS specifications
LP Differential Programmable Threshold Voltage Swing	-100 – 1500 mV	-100 – 1500 mV	Coverage for D-PHY and C-PHY Transmitter CTS specifications
Total Memory Space	4 GByte	4 GByte	Deep vector memory allows for tracing and debugging long-term events

Environment and Control

Feature	Description	Benefit
DUT Control Interface	I2C master, software programmable input/output flag pins	Enable sophisticated automation setups and camera test stations; enable output flag programming based on arbitrary trigger events
User Interface	Introspect ESP GUI allows for interoperation with embedded instruments, FPGA instruments, and other lab tools	Enables full lab automation; provides a scalable, future-proof solution
Scripting	Data logging; automatic report generation	Suited for performing full conformance testing

Detailed Analysis Capability

The screenshot displays the DPHY Data Capture software interface with several key features highlighted:

- Capture summary:** A table showing captured data with columns for ID, Time (ms), VC, Index, DT, DT Name, ImageWidth, ImageHeight, FirstPacket, and LastPacket.
- Images automatically reconstructed and saved:** A window showing a reconstructed image of a building.
- Precision time stamps:** A table with columns for Burst ID, Time (ms), NumBytes, NumBits, SotOffset, and NumCsiPackets.
- Short and long packets are automatically enumerated, header details extracted:** A detailed packet table with columns for Packet ID, Time (ms), Burst, DT, DT name, Header ECC, WC, Payload CRC, and Short.
- Errors highlighted:** Red markers in the packet table indicating detected errors.
- Hyperlinks for navigating between common bits, bytes and frames:** A navigation pane with buttons for bit, byte, and frame views.
- Bytes from each lane before and after being merged:** A table showing lane data for lane1, lane2, and lane3.
- HS bits, per lane, automatically translated to hex and decimal:** A window showing the raw bit stream and its corresponding hex and decimal representations.