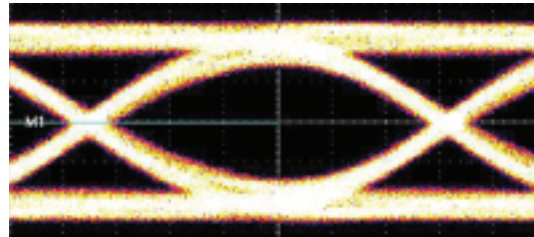
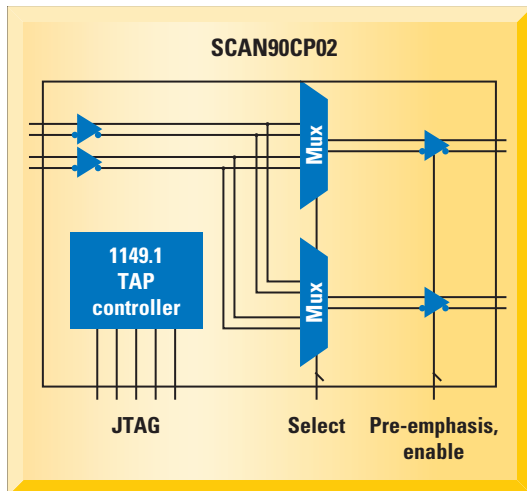


SCAN90CP02 – 1.5 Gbps 2 x 2 LVDS crosspoint switch with pre-emphasis and IEEE 1149.6

Product overview

The SCAN90CP02 is a low-power, 1.5 Gbps 2 x 2 LVDS switch with programmable pre-emphasis and IEEE 1149.1 and 1149.6 testability. Its non-blocking architecture and very low jitter make it ideal as a switch, buffer/repeater, 1:2 splitter, or 2:1 mux in high-speed switching and redundancy applications. Pin-programmable pre-emphasis dramatically reduces jitter caused by lossy backplane and cable interconnect, boosting the quality and extending the reach of existing LVDS signals from SerDes, FPGAs and ASICs.

Testability features include IEEE 1149.1 (JTAG) and 1149.6 to test TTL and LVDS connections between the pins and other devices on the board, plus supplementary JTAG-initiated fault insertion to verify system redundancy and fail-over modes work properly. The SCAN90CP02 is available in a tiny 5 x 5 mm LLP-28 package.



Eye pattern after 10m of CAT5 cable

Outstanding features

- 1.5 Gbps per channel
- Low power
- Very low jitter even after long interconnects
- Configurable 0/25/50/100% pre-emphasis drives lossy backplanes and cables
- Non-blocking architecture allows 1:2 splitter, 2:1 mux, crossover, and dual buffer configurations
- Flow-through pinout
- LVDS/Bus LVDS compatible I/O
- IEEE 1149.1 and 1149.6 compliant
- Single 3.3V supply
- Unused inputs and outputs save additional power
- Industrial -40°C to +85°C temperature range
- 5.0 × 5.0 × 0.6 mm LLP-28 package

Applications

- Servers
- Communications systems
- Switches

Product brief

National pioneered LVDS technology and is a recognized leader in high-speed differential products and design tools. The company offers a wide range of innovative, affordable interconnect solutions including serializer/deserializers (SerDes), drivers, receivers, transceivers, crosspoint switches and clock drivers. National also provides innovative SCAN products that support real-world IEEE 1149 test solutions – the foundation of any test strategy in complex electronic systems.

For more information on National's LVDS and SCAN technologies, visit: LVDS.national.com or www.national.com/SCAN