

SERDES 8B10B Bus Functional Model and Bus Monitor

Product Brief

Language - Verilog

Supported Protocols:

- 10G Ethernet XAUI/XGXS
- Ethernet 10/100/1000 SGMII
- Ethernet 1000BaseX
- PCI-Express
- Fibre Channel

Transmit Features

- 8b10b encoder with running disparity
- Up to 85 UI programmable bit skew
- disparity error injection
- invalid code error injection
- DC high error injection
- DC low error injection
- K-code monitor to enhance bus visibility
- Choice of 10bit, 20bit, or serial line interface

Receive Features

- 8b10b decoder with running disparity
- word alignment to K28.5
- word synchronization indication
- derived word clock from serial clock
- K-code monitor to enhance bus visibility
- Choice of 10bit, 20bit or serial line interface
- Can be used as stand alone Bus Monitor

General Features

- Standard error reporting through common code
- Shared 8b10b tables minimize memory footprint