64b/66b High-speed Serial Interface IP (ION 64b66b)

High-speed serial interface (13.5 Gbps maximum) achieved using a lightweight protocol

Overview

ION 64b66b is an IP for high-speed serial interface targeting applications with inter-chip and inter-board connections.
Lightweight link layer protocol provides one-to-one data movement via one or more high-speed serial lanes.

Features

- 13.5-Gbps maximum transmission rate per lane (however, depends on the FPGA used)
- Supports up to 16 lanes
- Supports CRC function
- Supports Scrambler function
- Supports asymmetrical link

Specifications

Function	Description
Maximum Number of Lanes	16
Transfer Rate (Effective Transfer Rate)	13.5Gbps (13.1Gbps)
Encoding	64B/66B
Data Width Per Lane	64 bit

Supported Devices

- Arria 10

(* Please contact Macnica sales department for information about other devices.)

Deliverables

- Encrypted RTL (Verilog HDL)
- Reference design
- Simulation environment (For ModelSim)
- User's manual, Reference manual