

Fibre Channel Link Layer IP Core

Layer-1 & Layer-2 IP Core for Fibre Channel

Applications

Avionics and defense networks
Enterprise networking/storage

Benefits

Accelerates FPGA application development time-to-market
Leverage proven technology for standard interface implementation
Lower development costs

Features

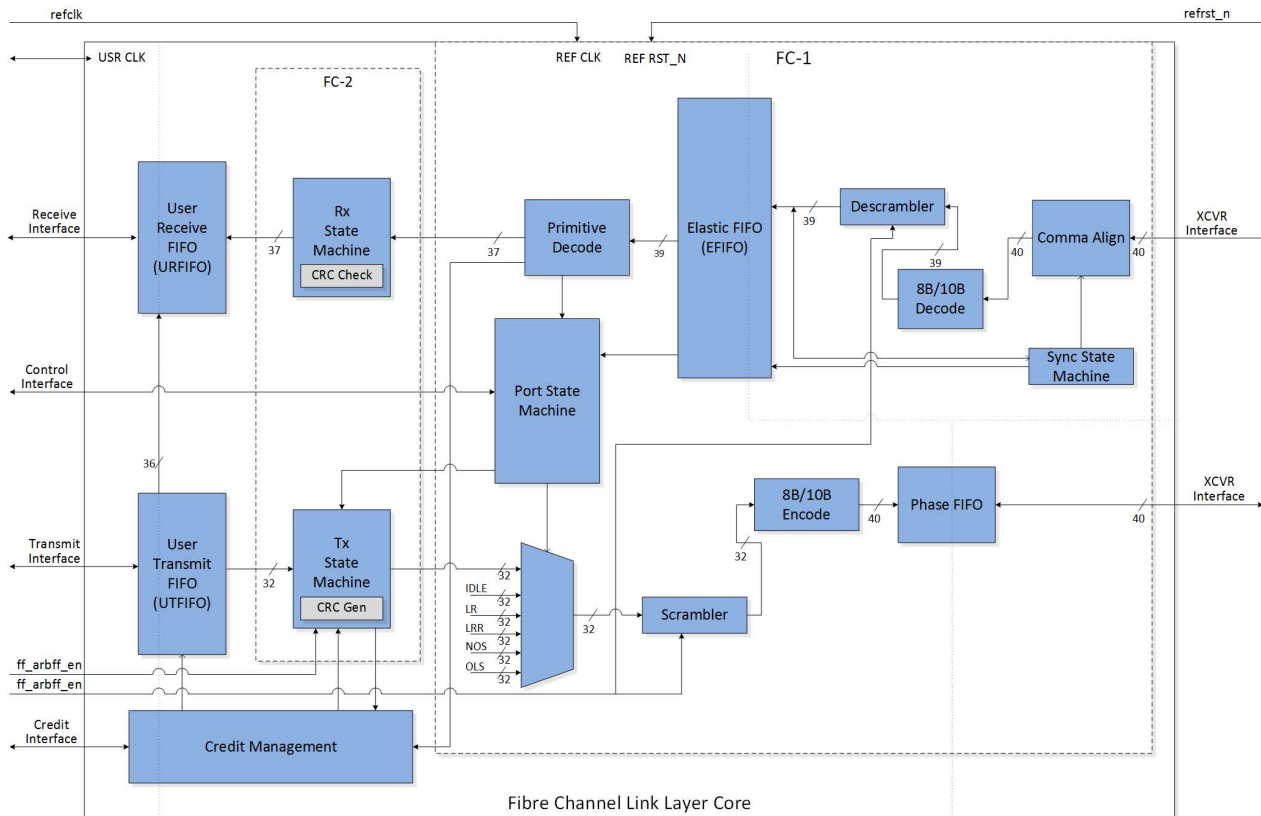
Supports 1/2/4/8/16 Gigabit Fibre Channel
N Port and F Port Types
Class 2 and Class 3 Fibre Channel Support
Switched Fabric, Point-to-Point, or Arbitrated Loop
Complete FC1-FC2 functionality
Intuitive streaming user interface
Scales for multiple port designs

Overview

The New Wave Design and Verification Fibre Channel (FC) Link Layer core provides a complete IP solution for FC Layer 1 and Layer 2. The core includes all functionality needed to meet the framing and signaling specification of Fibre Channel including: comma alignment, 8b/10b encode/decode, primitive decode, scrambling, port state machine, credit manager, CRC generation/checking, elastic FIFO, and phase FIFO.

At the physical layer, the core is built for connecting to ASIC/FPGA embedded SERDES or discrete SERDES parts. The user interface of the core provides an intuitive streaming interface for application designers. The user interface within the core also includes cross clocking logic making integration into the larger design extremely simple.

This core has been used on a diverse set of applications, from enterprise storage to aerospace electronics, and on a wide range of parts at varying operating rates. The core comes with test-benches and example code, making design integration a straightforward task.



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Complete Product Support Program

Our customers can attest to our exceptional support. New Wave DV provides an industry-standard warranty on its products, but it is the human factor that makes our support so valuable to our customers. Our team takes the time and effort to ensure a positive customer experience.

Our Commitment

New Wave DV is committed to providing the latest innovations in technology, architectures, and techniques to keep our customers one step ahead of the rest. Our products, complete with the Development Framework, are intended to offer our customers an entirely unique out-of-the-box experience.

New Wave DV FC Link Layer Cards

In addition to the FC-LL core, New Wave DV provides standard form-factor FC-LL interface cards that incorporate the FC-LL interface core along with high performance DMA engines and software drivers. Available in PMC/XMC form-factors, New Wave DV FC-LL cards provide up to 4 ports in a single card. Reach us at info@newwavedv.com to ask about our FC-LL solutions.

Technical Specifications

Core is delivered in netlist format including constraint files

SUPPORTED DEVICES

Xilinx: Virtex, Kintex, Artix, Zynq FPGAs
Altera: Stratix, Arria, Cyclone FPGAs
Microsemi: SmartFusion2, Igloo2 FPGAs

SUPPORTED RATES

1/2/4/8/16G

OPERATING FREQUENCIES

1G: 26Mhz
2G: 53Mhz
4G: 106Mhz
8G: 212Mhz
16G: 212Mhz (double data width)

Ordering Information

700-FC100-00-00: Fibre Channel Layer 1 and 2 core, full duplex, 1/2/4G support

700-FC100-01-00: Fibre Channel Layer 1 and 2 core, receive only, 1/2/4G support

700-FC100-02-00: Fibre Channel Layer 1 and 2 core, transmit only, 1/2/4G support

700-FC100-03-00: Fibre Channel Layer 1 and 2 core, full duplex, 1/2/4/8G support

700-FC100-04-00: Fibre Channel Layer 1 and 2 core, receive only, 1/2/4/8G support

700-FC100-05-00: Fibre Channel Layer 1 and 2 core, transmit only, 1/2/4/8G support

700-FC100-06-00: Fibre Channel Layer 1 and 2 core, full duplex, 1/2/4/8/16G support

700-FC100-07-00: Fibre Channel Layer 1 and 2 core, receive only, 1/2/4/8/16G support

700-FC100-08-00: Fibre Channel Layer 1 and 2 core, transmit only, 1/2/4/8/16G support

Other product configurations are available. Please contact us.

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