



Intel® TXN18107

10Gbps XFP Optical Transceiver

Intel® optical components are modular building blocks that enable networking equipment manufacturers to create standards-based products with shorter time-to-market and reduced development costs. Developers can use these silicon components to build optical network solutions to meet a variety of high-bandwidth requirements in SDH/SONET, Optical Transport Network and Ethernet networks.

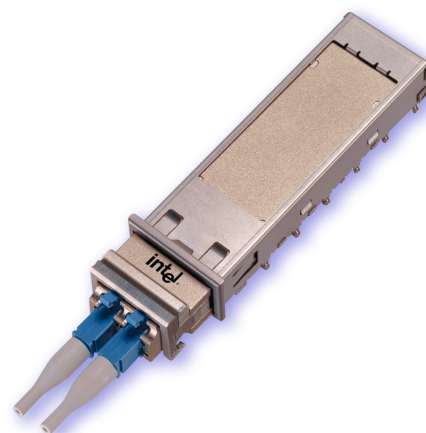
Product Overview

Designed to support link spans up to 10km, the Intel® TXN18107 10Gbps XFP Optical Transceiver provides an interface between the photonic physical layer and the electrical section layer in high-density data-center applications, local area networks (LANs) and storage area networks (SANs). This small form factor, hot-pluggable transceiver provides excellent optical performance in the challenging thermal environment of multi-port switch line cards and other high port-density applications including server network interface cards, storage host bus adapters, LAN switches, SAN switches, and storage array interfaces.

The Intel TXN18107 transceiver will operate at any bit rate from 9.95 to 10.51875Gbps. It is compliant with IEEE 802.3ae draft 5.0 10GBASE-LR, operating at 10.312Gbps for Ethernet applications and 10GFC draft 3.0 1200-SM-LL-L, operating at 10.51875Gbps for Fibre Channel applications.

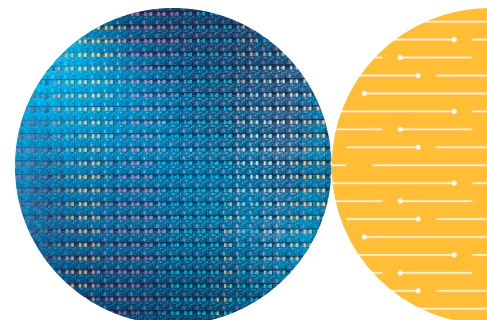
The transceiver includes an optical transmitter and receiver pair integrated with clock and data recovery (CDR) integrated circuits:

- The transmitter section cleans up and re-times the input from an XFI serial data bus and converts the result to an optical signal using a 1310nm distributed feedback laser (DFB).
- The receiver section converts a 10Gbps optical signal to an XFI serial 10G electrical signal. The receiver includes photodiode, transimpedance amplifier, and clock and data recovery.



- The module also includes an XFP MSA-compliant, 2-wire digital management and diagnostic interface.

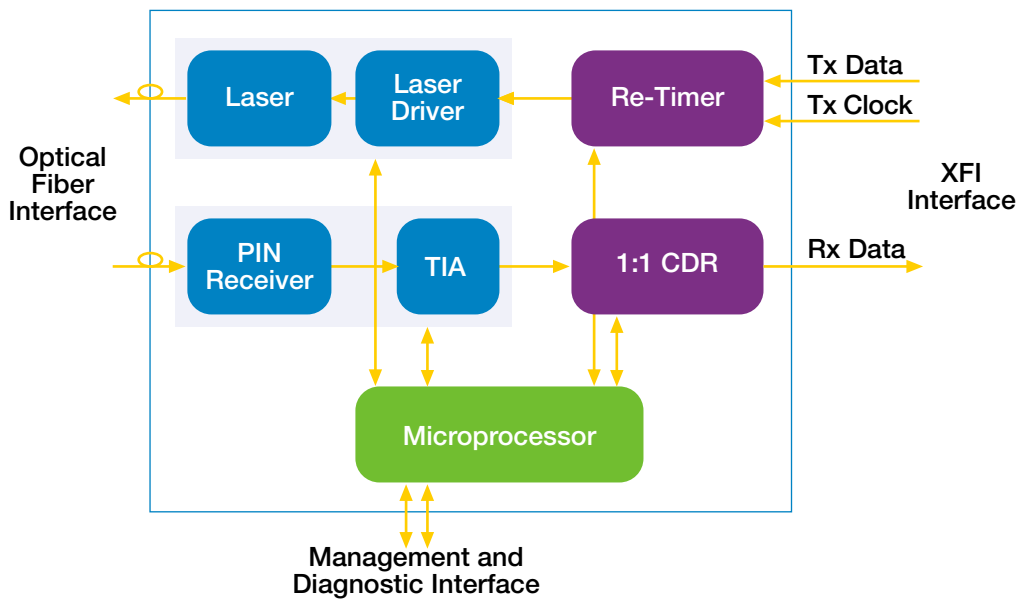
The Intel TXN18107 transceiver is the newest member of Intel's extensive product line of 10Gbps optical transceivers for enterprise and telecom applications. In addition to helping to improve time-to-market, this transceiver is a standards-based turnkey solution that enables system designers to install and change transceivers both during the manufacturing process and in the field for improved design flexibility and reduced inventory costs.



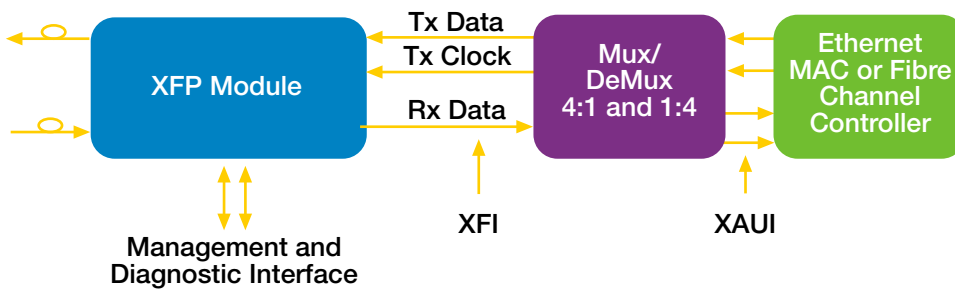
Product Highlights

- Compact MSA-compliant form factor:
0.722"W x 0.335"H x 3.07"L
- 16 modules fit on a line card or two on a PCI card
- IEEE 802.3ae draft 5.0-compliant
—10GBASE-LR operating at 10.312Gbps Ethernet bit rate
- 10GFC draft 3.0-compliant
—1200-SM-LL-L operating at 10.51875Gbps Fibre Channel bit rate
- Supports link spans up to 10km
- XFP MSA-compliant management and diagnostic interface

Intel® TXN18107 Block Diagram



Intel® TXN18107 Application Block Diagram



Key Applications

- Server network interface cards
- Storage host bus adapters
- Local Area Network (LAN) and Storage Area Network (SAN) switches
- Storage arrays

Features

Benefits

Excellent optical performance at 70°C	Robust link performance
Small, XFP MSA-compliant package	Increased port density, up to 16 ports per line card
Multi-rate, multi-protocol	Reduced cost by qualifying a single part for multiple customer applications
Full support for diagnostic monitors	Improved system reliability through remote system monitoring

Support Collateral and Tools

Item	Description	Order Number
Eval Board	Intel® XFP Compliance Test Kit	XEK66700

Intel Access

Developer Web Site	http://developer.intel.com
Networking Components Home Page	http://developer.intel.com/design/network
Intel® Technical Documentation Center	http://intel.com/go/techdoc (800) 548-4725 7 a.m. to 7 p.m. CST (U.S. and Canada) International locations please contact your local sales office.
General Information Hotline	(800) 628-8686 or (916) 356-3104 5 a.m. to 5 p.m. PST

For more information, visit the Intel Web site at: developer.intel.com

UNITED STATES AND CANADA

Intel Corporation
Robert Noyce Bldg.
2200 Mission College Blvd.
P.O. Box 58119
Santa Clara, CA 95052-8119
USA

EUROPE

Intel Corporation (UK) Ltd.
Pipers Way
Swindon
Wiltshire SN3 1RJ
UK

ASIA-PACIFIC

Intel Semiconductor Ltd.
32/F Two Pacific Place
88 Queensway, Central
Hong Kong, SAR

JAPAN

Intel Japan (Tsukuba HQ)
5-6
Tokodai Tsukuba-shi
300-2635 Ibaraki-ken
Japan

SOUTH AMERICA

Intel Semicondutores do Brasil LTDA
Av. Dr. Chucuri Zaidan, 940-10º andar
04583-904 São Paulo, SP
Brazil

Intel and the Intel logo are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.



Information in this document is provided in connection with Intel® products. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Intel's Terms and Conditions of Sale for such products, Intel assumes no liability whatsoever, and Intel disclaims any express or implied warranty, relating to sale and/or use of Intel products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right. Intel products are not intended for use in medical, life-saving or life-sustaining applications. Intel may make changes to specifications and product descriptions at any time, without notice.

Designers must not rely on the absence or characteristics of any features or instructions marked "reserved" or "undefined." Intel reserves these for future definition and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to them.