



# 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.**

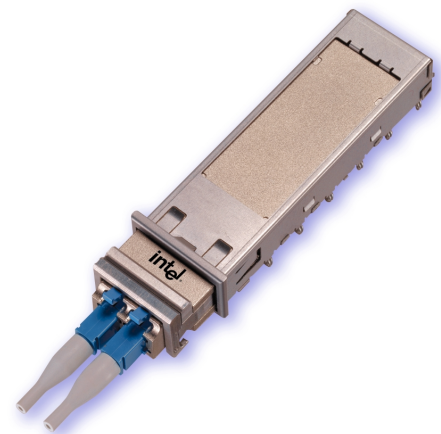
### Product Overview

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.

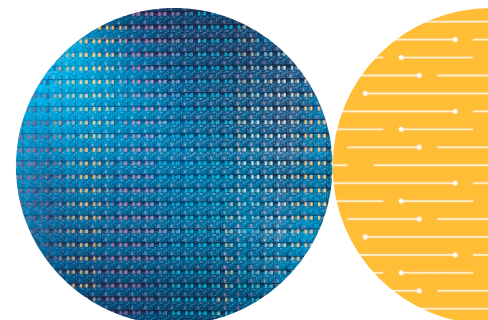
The transceiver includes an optical transmitter and receiver pair integrated with clock and data recovery (CDR) integrated circuits:

- 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.

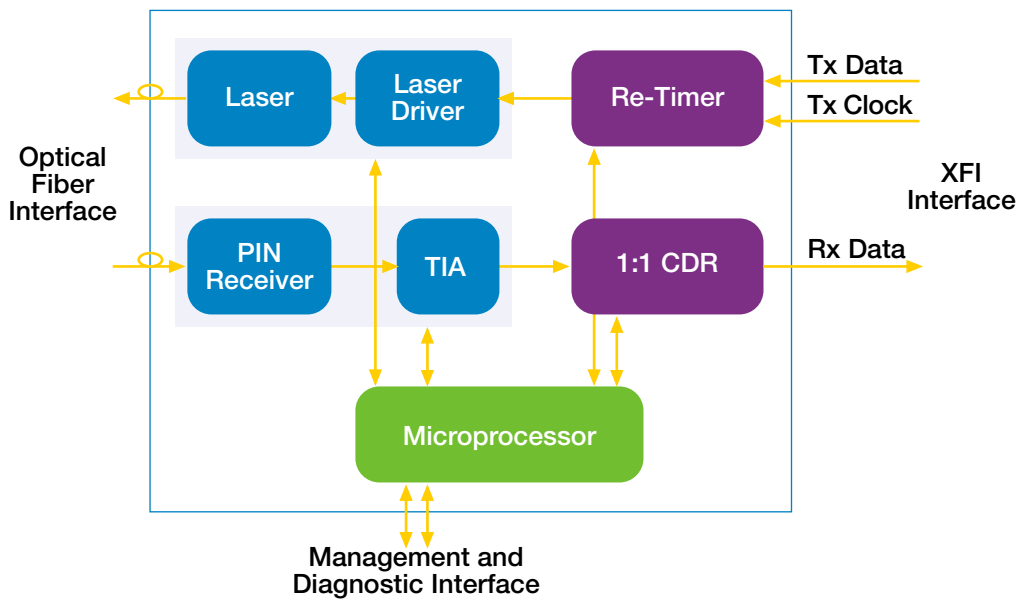
The Intel TXN18107 transceiver is the newest member of Intel's extensive product line of 10Gbps optical transceivers for enterprise and telecom applications. In addition to helping to improve time-to-market, this transceiver is a standards-based turnkey solution that enables system designers to install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



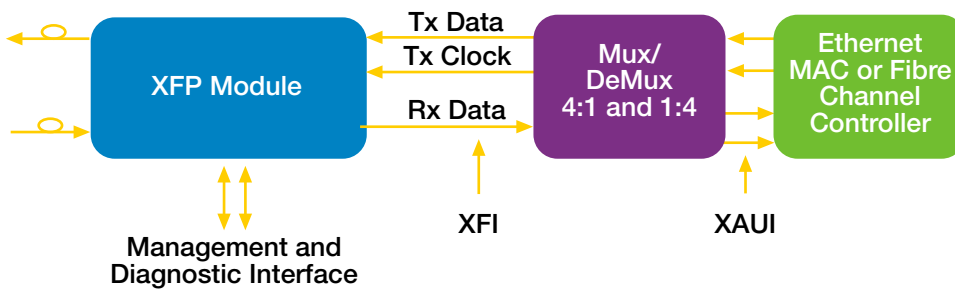
## Product Highlights

- 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	<a href="http://developer.intel.com">http://developer.intel.com</a>
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**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

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