



Intel® TXN17201/17209

10Gbps XPAK Optical Transceiver

Intel® optical components are modular building blocks that enable networking and communications equipment manufacturers to create standards-based products with shorter time-to-market and reduced development costs. Developers can use these components to build optical network solutions to meet a variety of high-bandwidth requirements in Ethernet and Fiber Channel Networks.

Product Overview

The Intel® TXN17201/209 10Gbps XPAK Optical Transceiver is a PCI form factor, hot-pluggable module designed for use in high-density data-center applications within local area networks (LANs) and storage area networks (SANs). It is the ideal solution for server network interface cards, enterprise stackable switches, Fibre Channel switches, and Fibre Channel host bus adapters.



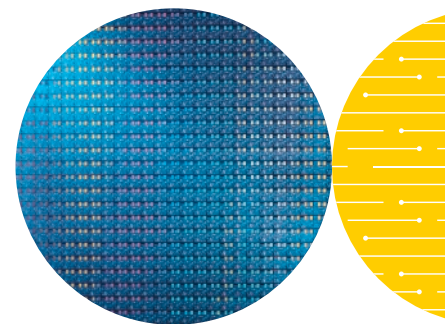
The Intel® TXN17201/209 family of optical transceivers provides an interface between the photonic physical layer and the electrical section layer. The module includes an optical transmitter and receiver pair integrated with Attachment Unit Interface (XAUI)-to-serial conversion.

The Intel® TXN17201 component is an IEEE 802.3ae, draft 5.0-compliant 10GBASE-SR multi-mode transceiver operating at 10.3Gbps for Ethernet applications. It includes Physical Coding Sublayer (PCS), Physical Medium Attachment (PMA), and Physical Medium Dependent (PMD) functions. The transmitter section decodes four 8B10B encoded channels at 3.125 Mbps from an XAUI parallel data bus, performs 64B/66B scrambling, and multiplexes the result into a 10.312Gbps Ethernet rate optical signal.

The receiver section demultiplexes a single 10Gbps optical signal and converts it to four channels of XAUI. The receiver includes a photodiode, transimpedance amplifier, clock recovery, decision circuit and demultiplexer, and operates over the 850nm band.

The Intel® TXN17209 component is a 10GFC draft 3.0-compliant 1200-MX-SN-I multi-mode transceiver operating at 10.5Gbps for Fibre Channel applications. It performs the same functions as the Intel® TXN17201 component at the 10.51875Gbps Fibre Channel data rate.

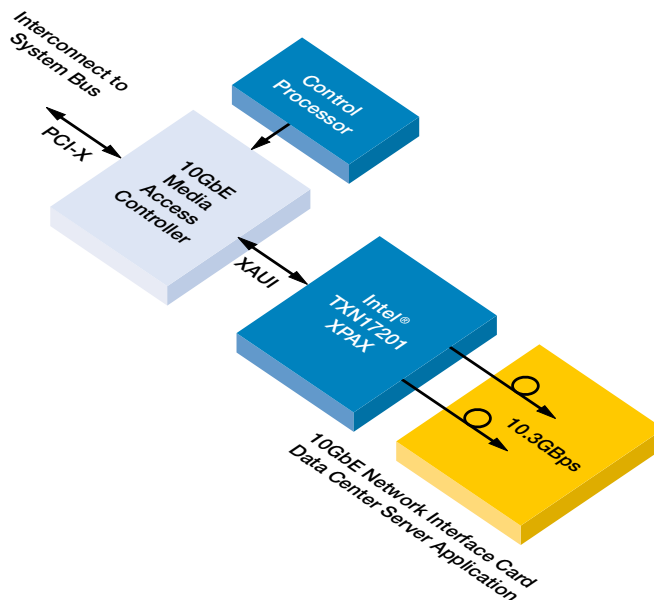
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Product Overview (continued)

The Intel® TXN17201/209 transceiver is designed for link spans up to 300m and uses an 850nm Vertical Cavity Surface Emitting Laser (VCSEL). It also includes an IEEE 802.3ae and XPAK MSA-compliant Management Data Interface (MDIO).

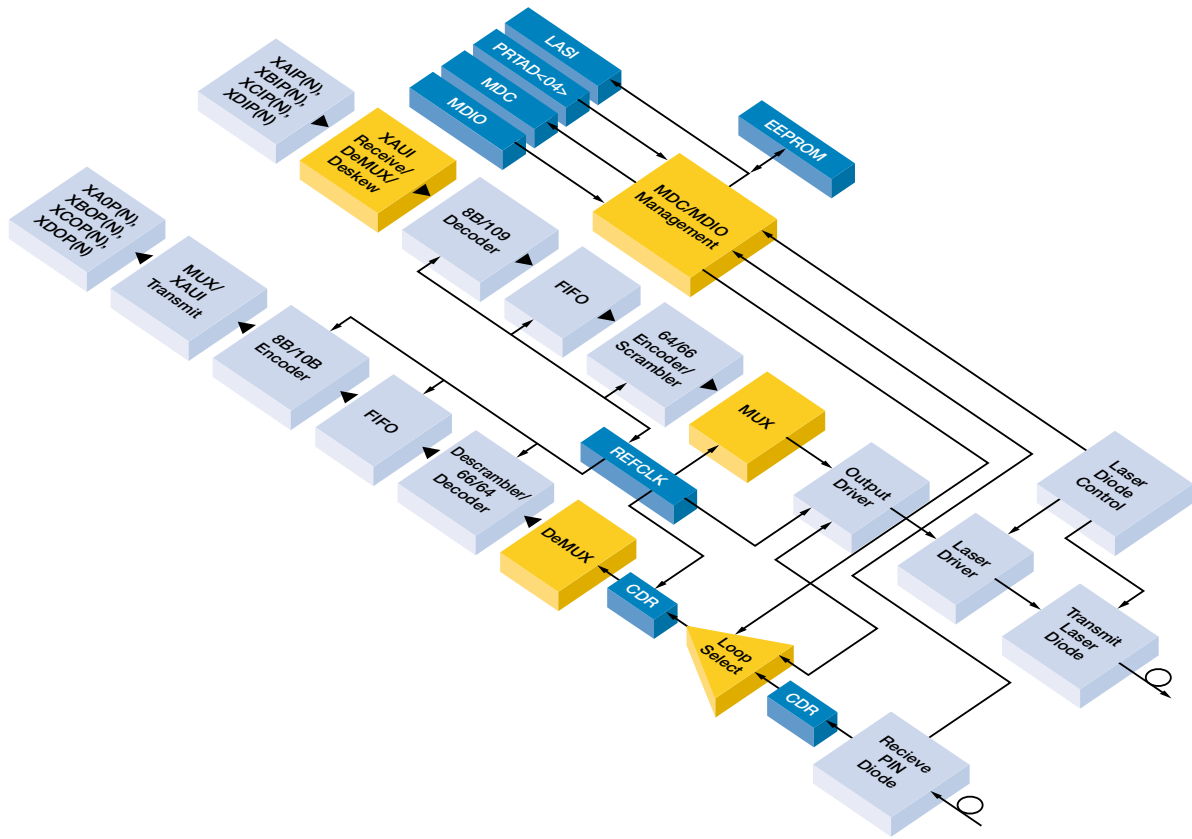
The Intel TXN17201/209 10Gbps XPAK Optical Transceiver is a standards-based, turnkey solution that improves time-to-market and enables system designers to install and change transceivers during the manufacturing process or in the field, for design flexibility and reduced inventory costs.



10GbE Network Interface Card Data Center Server Application

Product Highlights

- PCI-compatible compact form factor
- Intel® TXN17201 10GBASE-SR multi-mode transceiver
 - IEEE 802.3ae draft 5.0-compliant
 - 10.3Gbps Ethernet bit rate
- Intel® TXN17209 1200-MX-SN-I multi-mode transceiver
 - 10GFC draft 3.0-compliant
 - 10.5Gbps Fibre Channel bit rate
- Supports link spans up to 300m
- XPAK Multi Source Agreement (MSA)-compliant Management Data Interface
- Fully Hot Pluggable



Intel® TXN17201/209 SerDes Block Diagram

Features

Benefits

<p>Compact MSA-compatible package:</p> <ul style="list-style-type: none"> 2.740 inches (l) 1.557 inches (w) 0.465 inches (h) 	<p>Suitable for PCI card applications</p>
<p>Small cross-section</p>	<p>Enables up to ten (10) 10Gbps ports on a single line card</p>
<p>Hot-pluggable front faceplate</p>	<p>Enables the system designer to install and change transceivers during manufacturing and in the field for design flexibility and reduced inventory cost</p>
<p>XPAK MSA-compliant electrical interface:</p> <ul style="list-style-type: none"> 70-pin board edge connector; standard LC optical connectors Heat sink designed for 45°C (ambient) with airflow of 100 linear fpm. 	<p>A standardized, turnkey solution that improves time-to-market</p> <p>Versatile thermal solution</p>

Support Collateral and Tools

Item	Description	Order Number
Eval Board	Intel® TXN1720 Evaluation Board	TXNEB1720

Intel Access

Developer Web Site	http://developer.intel.com
Networking Components Home Page	http://developer.intel.com/design/network
Other Intel Support: Intel Literature Center	http://developer.intel.com/design/litcentr 800 548-4725 7am - 7pm CST (USA and Canada)
General Information Hotline	800 628-8686 or 916 356-3104 5am - 5pm 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 Semiconductores do Brasil LTDA
Av. Dr. Chucri Zaidan, 940-10^o andar
04583-904 Sao Paulo, SP
Brazil

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