

# Intel® LXT9761/81, LXT9762/82 and LXT9763 10/100BASE Hex/Octal Ethernet Transceivers

## Product Overview

With the proliferation of PCs and other Internet appliances, the need for faster data transmission is becoming more and more of a necessity. Intel, a leader in Fast Ethernet technology, offers low-power, single-chip Hex/Octal 10BASE-T and 100BASE-TX/FX PHY products, bringing robust Cable Discharge Event (CDE) performance to networking systems such as switches and multi-port Network Interface Cards (NICs).

The five transceivers in this product family, LXT9761, LXT9781, LXT9762, LXT9782, and LXT9763, are advanced 6-port and 8-port PHY transceivers incorporating Intel's Optimal Signal Processing (OSP) architecture. OSP is an ideal combination of digital signal processing and analog design techniques developed to improve die size, power consumption, performance, reliability, and testability.

Through this architecture, an Intel Hex/Octal 10/100BASE PHY provides low-power copper and fiber optic Ethernet connectivity. Interfaces available in this product family include the standard Media Independent Interface (MII), Serial MII (SMII), and Reduced MII (RMII), allowing switch ASIC designs to take advantage of low pin-count PHY interfaces.



The Intel family of 10/100BASE Hex/Octal Ethernet transceivers can provide significant savings for high-density switch and router applications. With one of the broadest Ethernet product lines in the industry, Intel stands ready to deliver the 10Mbps, 100Mbps and 1000Mbps devices OEMs require to meet their customers' needs.

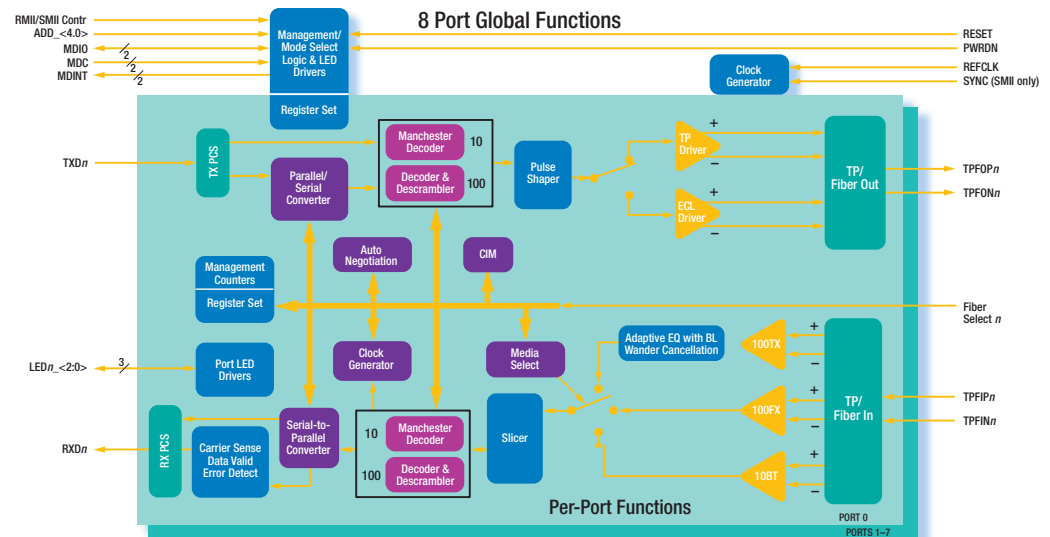
## LXT976x/8x Family of Advanced Multi-Port Fast Ethernet Transceivers

Product	Ports	Interface	Package
LXT9761	6	RMII (3.3/2.5V)	208 PQFP
LXT9781	8	RMII (3.3/2.5V)	208 PQFP & 272 PBGA
LXT9762	6	SMII (3.3/2.5V)	208 PQFP
LXT9782	8	SMII (3.3/2.5V)	208 PQFP & 272 PBGA
LXT9763	6	MII (3.3/2.5V)	208 PQFP

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Architecture

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LXT9761/81 LXT9762/82 and LXT9763 Block Diagram



## Features

- 6 or 8 independent 10/100 ports
- Low-cost standard PQFP Package
- Very low power
  - 3.3V operation
  - 2.5V interface option
- Multiple interfaces
  - Media Independent Interface (MII)
  - Reduced MII
  - Serial MII
- Baseline wander correction
- Auto negotiation/parallel detection
- PECL interface
- Extended register capability
- Configurable LED drivers
- 10/100Mbps full duplex operation

## Benefits

- Helps simplify designs
  - Reduces board space
  - Reduces system cost
- Helps reduce manufacturing and system costs
- Helps reduce system cost and power
  - System design using only 3.3V
  - 3.3 and 2.5V interfaces available
- Provides system design flexibility
  - Legacy compliance
  - Lower pin count interface
  - Lowest pin count interface
- Offers consistent error-free performance
- Helps maximize line-operating conditions
- Utilizes 100BASE-FX fiber optic cable
- Provides added functionality
- Provides for per-port activity/collision indicator
- Enables simultaneous data transmit/receive

## Intel® Internet Exchange Architecture

Intel® Internet Exchange Architecture (IXA) is an end-to-end family of high-performance, flexible and scalable hardware and software development building blocks designed to meet the growing performance requirements of today's networks. Based on programmable

silicon and software building blocks, Intel® IXA solutions enable faster development, more cost-effective deployment, and future upgradability of network and communications systems. Additional information can be found at [www.intel.com/IXA](http://www.intel.com/IXA).

## Intel Access

Developer's Site	<a href="http://developer.intel.com">developer.intel.com</a>
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