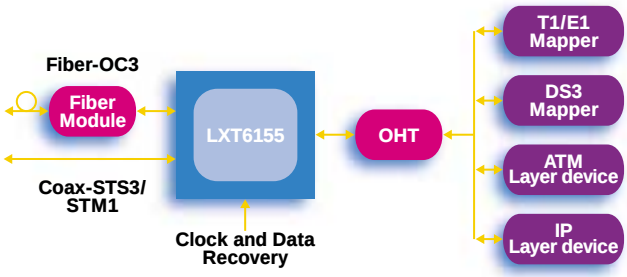
Intel® LXT6155 Mbps Transceiver

Product Description

The Intel® LXT6155 transceiver is a highly integrated, low-power Synchronous Optical Network (SONET) and Synchronous Digital Hierarchy (SDH) transceiver that supports fiber and coax transmission on the same chip. OC3/STM1/STS3/STS3c-compatible at 155Mbps, the Intel LXT6155 transceiver helps maximize proven mixed-signal design expertise in 3.3V CMOS technology, consuming 650mW of power and allowing the integration of multiple OC3s on the same board.



This diagram illustrates a typical application for Intel's LXT6155 transceiver.

The Intel LXT6155 transceiver is designed to support high-bandwidth Internet and eCommerce applications in next generation network equipment such as:

- **Digital Cross Connect Systems (DCCS)**
- **Digital Loop Carriers (DLC)**
- **Add/Drop and Terminal Multiplexers**
- **Digital Subscriber Loop Access Multiplexers (DSLAM)**
- **Asynchronous Transfer Mode (ATM) Wide Area Network (WAN) transmission systems**

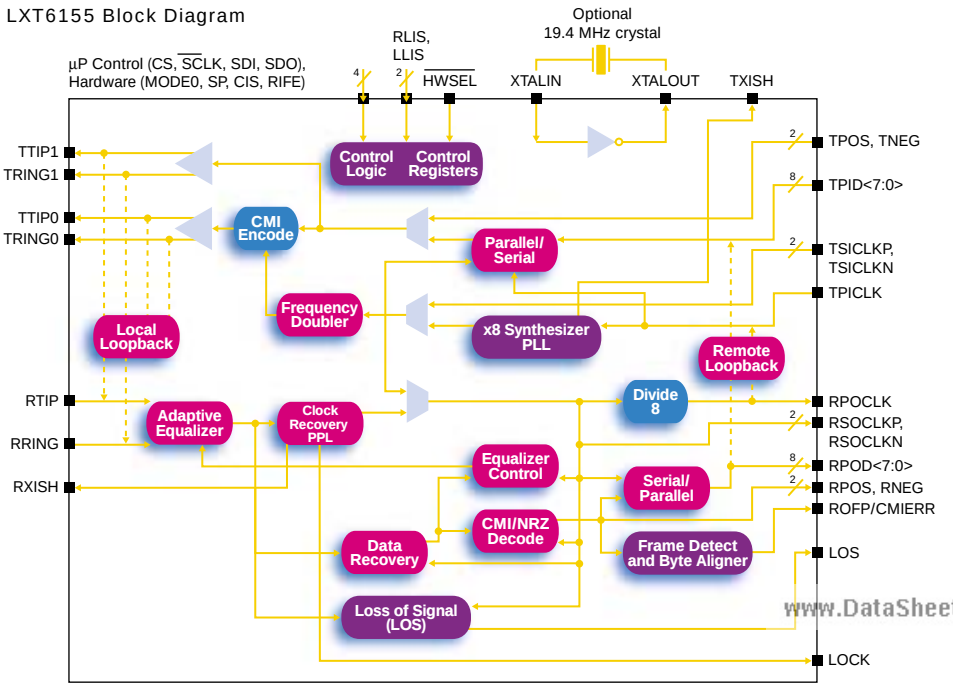
The Intel® Advantage

Intel combines mixed-signal design expertise with proven CMOS technology to produce low-power, cost-effective connectivity solutions. Intel's LXT6155 transceiver provides increased functionality and greater reliability, two critical requirements for central office and digital loop carrier systems. With its outstanding jitter performance, the Intel LXT6155 transceiver meets stringent SONET/SDH standards for system and network reliability and serviceability.

By providing evaluation boards, a GUI interface, and additional design information, Intel offers excellent customer support that helps reduce time to market. Combined with Intel's portfolio of LAN and WAN products, the Intel LXT6155 transceiver provides a comprehensive client-to-client solution.

The diagram below outlines the major functional blocks in the Intel LXT6155 transceiver.

LXT6155 Block Diagram



Intel® Internet Exchange Architecture

www.intel.com/design/network

Key Applications

- OC3/STM1 SONET/SDH Cross Connects
- OC3/STM1 SONET/SDH Add/Drop Multiplexer
- OC3/STS3/STM1 Short Haul Serial Links
- OC3/STM1 ATM/WAN Access Systems
- OC3/STM1 SONET/SDH Digital Loop Carriers
- OC3/STS3/STM1 ATM/WAN Transmission Systems

Support Collateral

- LXT6155 Application Reference Guide
- LXT6155 Datasheet
- LDB6155 FAQ
- LXT6155 Demo board and User Guide

Intel® Internet Exchange Architecture

Intel® Internet Exchange Architecture 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.

Features and Benefits

Features	Benefits
■ Complementary Metal Oxide Semiconductor (CMOS)	■ An inexpensive design technology used in integrated circuit chip design that allows very low power consumption (less than 650mW is typical) for optimal board usage
■ Complies with Synchronous Optical Network (SONET) and Synchronous Digital Hierarchy (SDH) specifications	■ Meets with Bellcore GR-253, ITU-T G.703/825/958 STM1 and ANSI specification requirements
■ Code Mark Inversion (CMI) Interface	■ Allows 155.52Mbps transmission over coax cable
■ OC3 and STS3/STM1 support	■ Allows 155.52Mbps transmission over fiber and in TDM or ATM networks
■ Loss of Signal (LOS) Generation	■ Generates alarm signal informing network operators of weak or lost signals
■ On-chip equalizer and synthesizer	■ No external circuitry needed
■ Framer/byte alignment function	■ Offers high interoperability with numerous OHT devices
■ Low Voltage Pseudo Emitter Couple Logic (LV PECL) interface	■ Operable with 3.3V modules
■ Microprocessor interface	■ Compatible with standard Intel and Motorola* devices
■ Hardware and software modes	■ Can operate in hardware stand-alone mode or software mode (microprocessor-controlled)

Intel Access

Developer's Site	http://developer.intel.com
Intel Internet Exchange Architecture Home Page	http://www.intel.com/IXA
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 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

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