

### Physical Layer Transceiver 10/100BASE-T/TX

#### General Description

Operating the core at 1.8 volts to meet low voltage and low - power requirements, the KSZ8041NL is a 10BASE-T/100BASE-TX Physical Layer Transceiver with MII / RMII interfaces to transmit and receive data. A unique mixed signal design extends signaling distance while reducing power consumption.

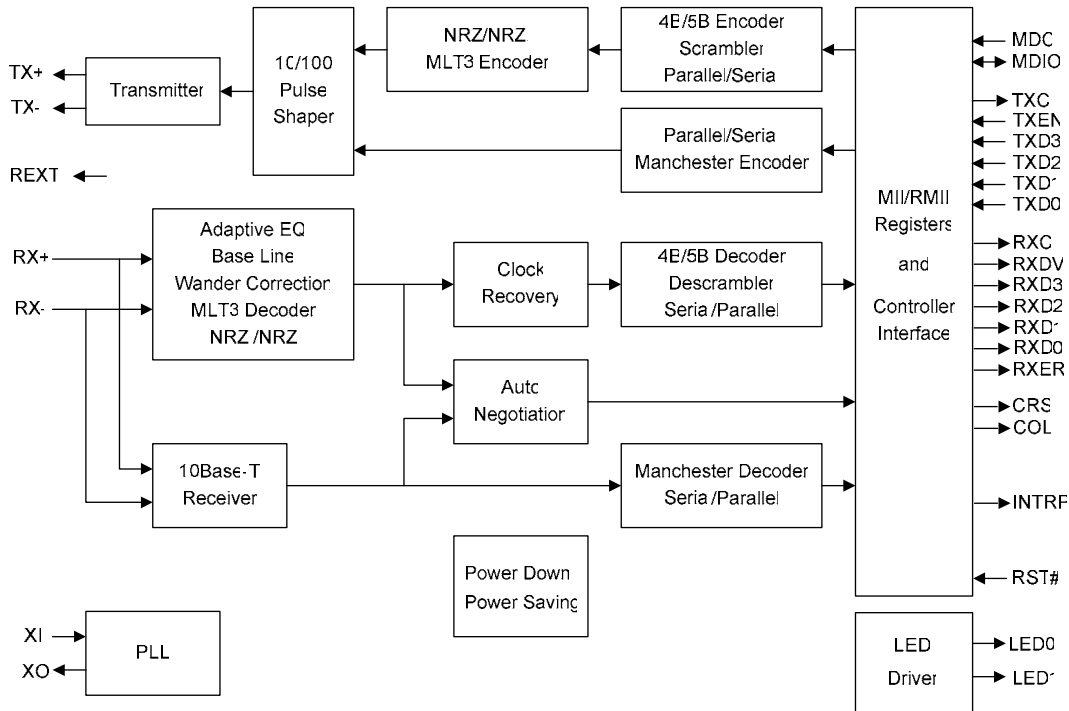
HP Auto MDI/MDI-X provides the most robust solution for eliminating the need to differentiate between crossover and straight-through cables.

The KSZ8041NL represents a new level of features and performance and is an ideal choice of physical layer transceiver for 100BASE-TX/10BASE-T applications.

#### Applications

- Printers
- LOM
- Games Console
- IPTV
- IP phones
- IP Set-Top Boxes
- Industrial Ethernet
- Automated Industrial Control Applications

#### Block Diagram



KSZ8041-NL Block Diagram

## Features

- Single chip 100BASE-TX/10BASE-T physical layer solution
- Low power CMOS design, power consumption of ~150 mW
- Robust operation over standard cables
- Supports Media Independent Interface (MII), Reduced MII (RMII)
- RMII Back-to-Back Mode
- Supports HP MDI/MDI-X auto crossover
- Supports power down mode and power saving mode
- MDC/MDIO to 12.5 MHz for rapid configuration
- Fully compliant to IEEE 802.3u standard
- Supports auto-negotiation and manual selection for 10/100Mbps speed and full/half-duplex mode
- Single Power Supply (3.3V)
- 32-pin MLF™ (QFN per JEDEC) package

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