

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.

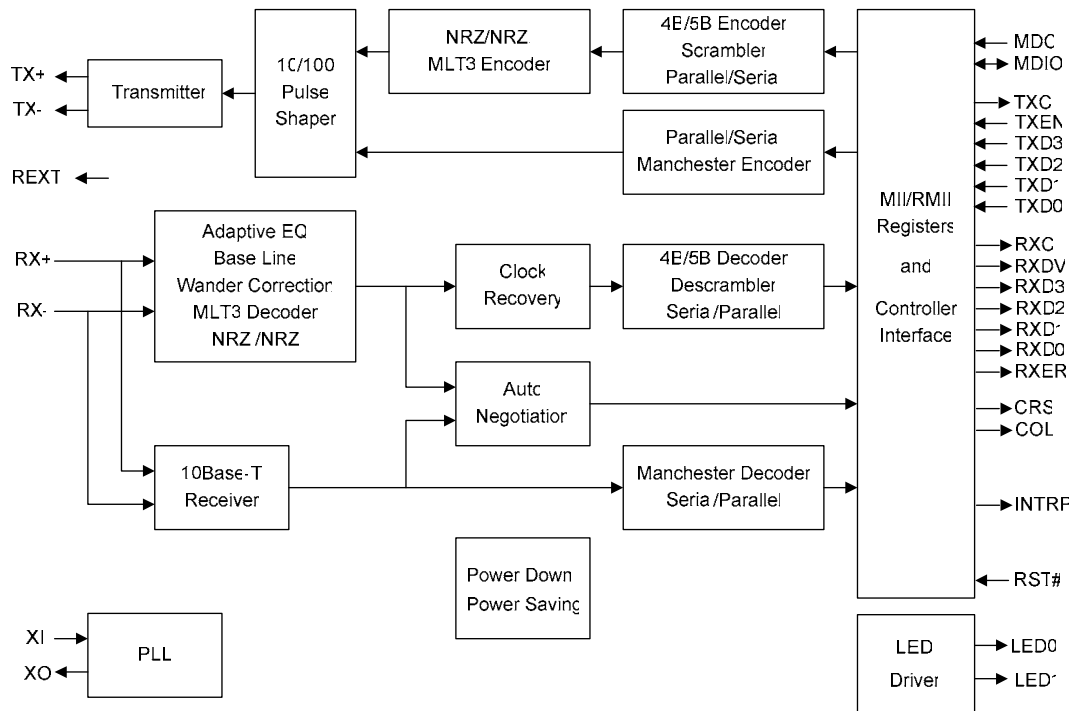
HP Auto MDI/MDI-X provides the most robust solution for eliminating the need to differentiate between crossover and straight-through cables.

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 MLFTM (QFN per JEDEC) package

Contact Micrel, Inc.

Location	Address		Telephone	Fax
Corporate HQ	2180 Fortune Drive	San Jose, CA 95131 USA	(408) 944-0800	(408) 474-1000
Eastern USA	93 Branch St.	Medford, NJ USA	(609) 654-0078	(609) 654-0989
Central USA	2425 N. Central Expressway, Suite 351	Richardson, TX 75080 USA	(972) 393-2533	(972) 393-2370
Western USA	2180 Fortune Drive	San Jose, CA 95131 USA	(408) 944-0800	(408) 474-1000
China	Rm 601, Bldg B, Int'l Chamber of Commerce Mansion, Fuhua Rd. 1, Futian Dist	Shenzhen, P.R. China 518048	+86 (755) 8302-7618	+86 (755) 8302-7637
Korea	8F, AnnJau Tower, 718-2 Yoeksam-Dong, Kangnam-Ku	Seoul 135-080 Korea	+82 (2) 538-2380	+82 (2) 538-2381
Taiwan	4F, No. 18 Lane 321, Yang-Guang Street, Nei-Hu Chu	Taipei 11475 Taiwan, R.O.C.	+886 (2) 8751-0600	+886 (2) 8751-0746
Japan	Queens Tower 14F, 2-3-1, Minatomirai, Nishi-ku Yokohama	Kanagawa 220-6014 Japan	+81 (45) 224-6616	+81 (45) 224-6716
UK/EMEU	1st Floor, 3 Lockside Place, Mill Lane	Newbury, Berks RG14 5QS UK	+44 1635 524455	+44 1635 524466
Southern Europe	10, avenue du Quebec, Villebon BP116	Courtaboeuf Cedex 91944 France	+33 (0) 1 6092 4190	+33 (0) 6 0868 4489
Nordic Region	Lundagatan 11, 6tr	SE-171 63 Solna Sweden	+46 8 470 5950	+46 70 572 7823
Latin America	2425 N. Central Expressway, Suite 351	Richardson, TX 75080 USA	(972) 393-2533	(972) 393-2370
New Zealand	Office 2, CML Building 2 Perry Street	Masterton, New Zealand	+64-6-378-9799	+64-6-378-9599
Singapore	300 Beach Road #10-07 The Concourse	Singapore 199555	(65) 6291-1318	(65) 6291-1332

