

10/100 LV PHY FX

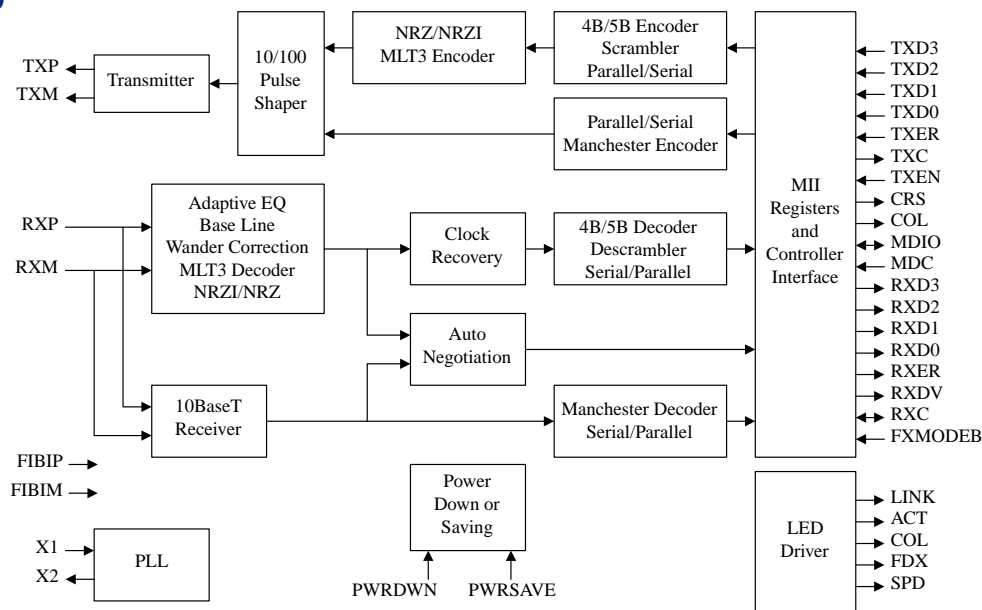
Operating at 3.3 Volts to meet low voltage and low power requirement, the KS8737 is a 10/100BaseTX/FX Physical Layer Transceiver which provides MII interface for transmit and receive data. It contains the 100BaseTX/FX Physical Medium Attachment (PMA), Physical Medium Dependent (PMD), and Physical Coding Sub-layer (PCS) functions. Moreover, the KS8737 has an on-chip 10BaseT encoder/decoder and output filtering, which eliminates the need for external filters and allows a single set of line magnetics to be used to meet the requirements for both 100BaseTX and 10BaseT.

The KS8737 can automatically configure itself for 100 or 10 Mbps and full or half duplex operation, using the on-chip Auto-Negotiation algorithm. It's an ideal physical layer transceiver choice for 100BaseTX 100BaseFX/10BaseT applications.

Features

- Single chip 100BaseTX/100BaseFX/10BaseT physical layer solution
- 3.3V CMOS design, 70mA operating current (excluding Transmit output driver current)
- Fully compliant to IEEE 802.3u standard
- Supports Media Independent Interface (MII) mode
- Supports 10BaseT, 100BaseTX and 100Base-FX fiber channel with Far_End_Fault Detection
- Supports power down and power saving modes
- Configurable through MII serial management ports or via external control pins
- Supports auto-negotiation and manual selection for 10Mbps or 100Mbps speeds
- Supports auto-negotiation and manual selection for full- and half-duplex modes
- Standard CSMA/CD or full duplex operation at 10Mbps or 100Mbps
- On-chip built-in filtering for both 100BaseTX and 10BaseT
- LED outputs for link, activity, full/half duplex, collision and speed
- Available in 64-pin TQFP surface mount package (10 mm × 10 mm × 1.0 mm)

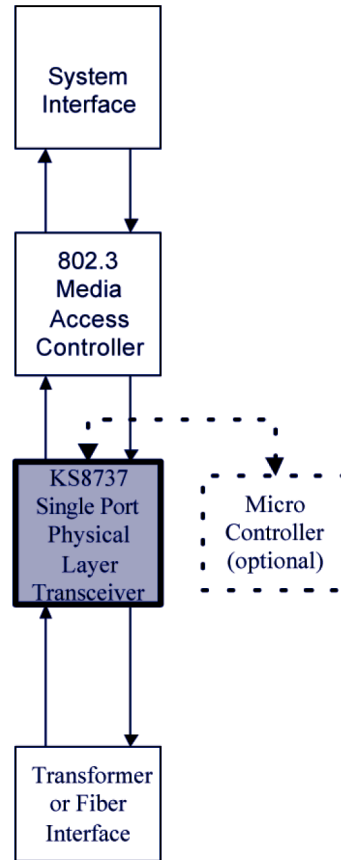
Block Diagram



System Level Applications

The KS8737 is ideal for 3.3V applications where power and cost are important issues. A standard MII port is supplied for easy MAC integration. Management can be

controlled by either strapping control pins or using the MII management port. A single port example of the KS8737 usage is shown below.



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