



DM9601E Product Brief

USB to Ethernet MAC Controller with Integrated 10/100 PHY

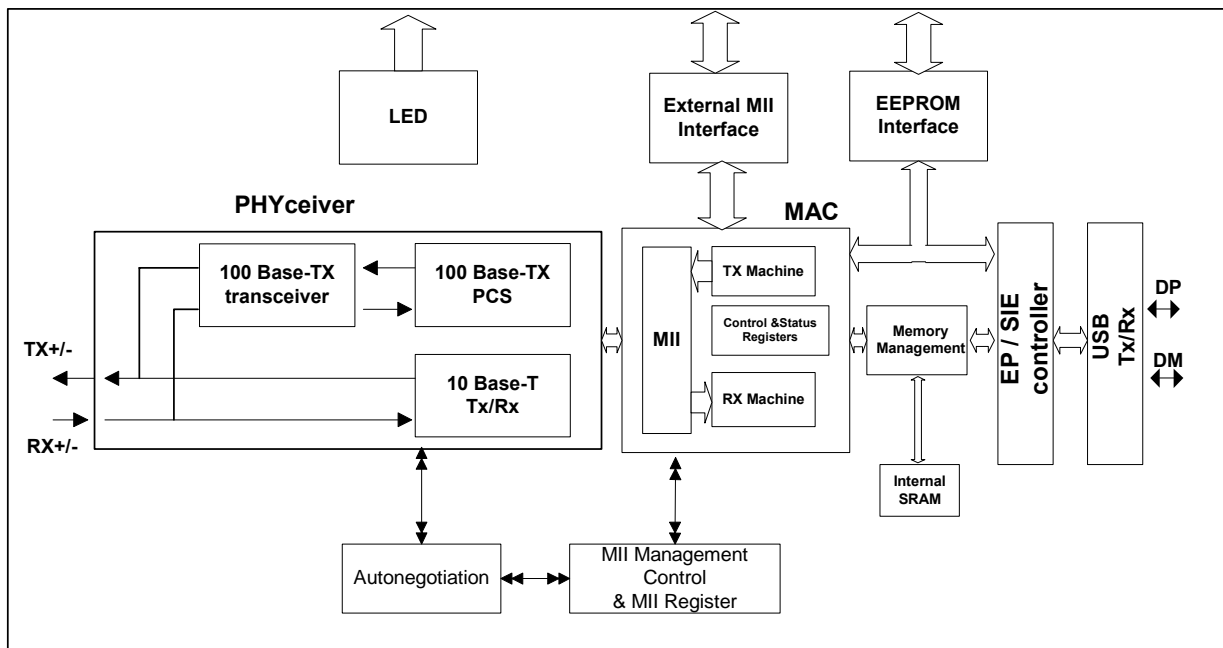
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The DM9601 is a fully integrated and cost-effective single chip USB to Fast Ethernet MAC controller with 10/100 PHY. It is designed with the low power and high performance process. It is a 3.3V device with 5V tolerance then it supports 3.3V and 5V signaling.

The DM9601 provides USB transceiver compliant with USB1.1, 10/100M PHY, MAC controller, memory controller and an external MII interface to connect HPNA device or other support MII interface transceiver. This chip already integrated 16K byte SRAM. The DM9601 interfaces to the UTP3, 4, 5 in 10Base-T and UTP5 in 100Base-TX. It is fully compliance with the IEEE 802.3u Spec. Its auto-negotiation function will automatically configure the DM9601 to take the maximum advantage of its abilities. The DM9601 is also support IEEE 802.3x full-duplex flow control.

The DM9601 supports 3 wake-up event to wake-up system from suspend mode. There are 7 GPIO pins (General purpose I/O) for user's application.

Block Diagram



Specifications

■ USB Characteristics:

- USB Specification revision 1.1 compliant
- Supports 12MHz Full-Speed operation
- Supports suspend mode and remote wake-up resume
- Supports USB standard commands
- Supports vendor specific commands
- Supports test-mode for memory test.
- Efficient TX/RX FIFO auto management.

■ Transceiver: 10/100M PHY, USB 1.1

■ Others:

- Supports large internal 16K byte SRAM
- Supports automatically load vendor ID and product ID from EEPROM
- Supports MII and reverse MII interface
- IEEE802.3x flow control for full-duplex mode
- Back Pressure Mode for half-duplex mode flow control
- Supports wakeup frame, link status change and Magic packet events for remote wake-up
- Low-Power, Single-Supply 3.3V CMOS technology
- Very Low Power Consumption mode
 - Power Reduced mode(cable detection)
 - Power Down mode
 - Selectable TX drivers for 1:1 or 1.25:1 transformers for additional power reduction.
- Compatible with 3.3V and 5.0V tolerant I/O
- 100-pin LQFP

Application

- VoIP CPE (ATA, IP Phone, Video Phone)
- IP STB, IPC, Internet Radio

Ordering Information

Part Number	Pin Count	Package
DM9601E	100	LQFP

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