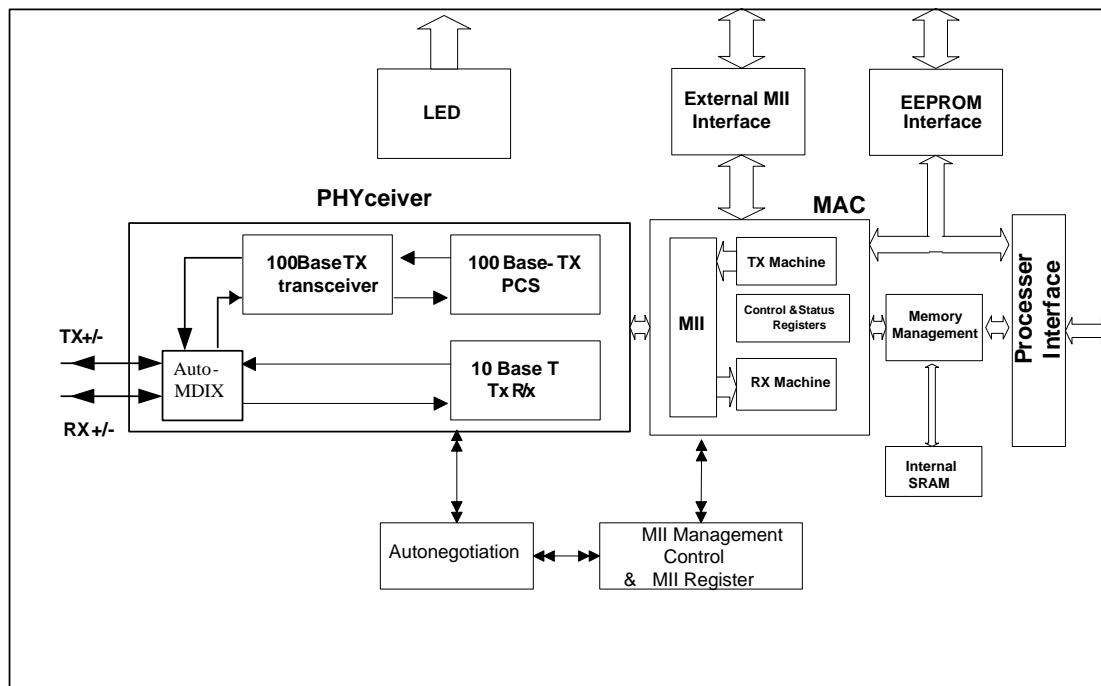# DM9010EP Product Brief

Ethernet Controller with General Processor Interface

June 2008 Rev.1.0

The DM9010 is a fully integrated and cost-effective single chip Fast Ethernet MAC controller with a general processor interface, a 10/100M PHY and 16K Byte SRAM. It is designed with low power and high performance process that support 3.3V with 5V tolerance.

The DM9010 also provides a MII interface to connect HPNA device or other transceivers that support MII interface. The DM9010 supports 8-bit, 16-bit and 32-bit uP interfaces to internal memory accesses for different processors. The PHY of the DM9010 can interface to the UTP3, 4, 5 in 10Base-T and UTP5 in 100Base-TX. It is fully compliant with the IEEE 802.3u Spec. Its auto-negotiation function will automatically configure the DM9010 to take the maximum advantage of its abilities. The DM9010 also supports IEEE 802.3x full- duplex flow control. This programming of the DM9010 is very simple, so user can port the software drivers to any system easily.

Block Diagram

Specifications

■ 100-pin LQFP.

■ Supports processor interface: Byte/word/Dword of I/O command to internal memory data operation

■ Integrated 10/100M transceiver with HP Auto-MDIX

■ Supports MII and reverses MII interface

■ Supports back pressure mode for half-duplex mode flow control

■ IEEE802.3x flow control for full-duplex mode

■ Supports wakeup frame, link status change and magic packet events for remote wake up

■ Integrated 16K Byte SRAM

■ Build in 3.3V to 2.5V regulator

■ Supports early Transmit

■ Supports IP/TCP/UDP checksum generation and checking

■ Supports automatically load vendor ID and product ID from EEPROM

■ Supports 7 or 23 GPIO pins

■ Optional EEPROM configuration

■ 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.

‒ 1: 1 transformers only when HP Auto-MDIX Enable .

■ Compatible with 3.3V and 5.0V tolerant I/O

Application

VoIP CPE (ATA, IP Phone, Video Phone)

IP STB, IPC, Internet Radio

Ordering Information

Part Number	Pin Count	Package
DM9010E	100	LQFP
DM9010EP	100	LQFP(Pb-Free)

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