

## DM90xx / DM9102 – Fast Ethernet MAC+PHY Controller



With the 4th generation of the DM90xx / DM9102x MAC+PHY controller families Davicom completes the 10/100M fast Ethernet ICs now with types for the extended temperature range (-40°C to +85°C). The earlier power saving analog 0.25µ process used for the PHY has been complemented by a DSP-based 0.18µ process. Thus, not only energy and cost relevant applications, but also industrial applications with extended temperature range can be realized.

The new components DM9000B, DM9010B and DM9102H are pin and software compatible to their predecessor. The external wiring does not have to be changed. The programming of the components is fairly easy. Drivers for Windows CE, VX Works and Linux, as well as linkage to Renesas M16/R32C are available. For quick and easy integration development boards are available.

### Product List

Parameter Type	Interface			Speed	MDI-X PHY	Ext. Interface MII / RMII	Temperature range		Current [max.]	Package
	8/16-Bit	32-Bit	PCI				0°...70°C	-40°...85°		
DM9008C	✓			10M	✓		✓		130+40mA*	LQFP 48
DM9000A	✓			10/100M	✓		✓		52+40mA*	LQFP 48
DM9000B	✓			10/100M	✓		✓		130+40mA*	LQFP 48
DM9000BI	✓			10/100M	✓			✓	130+40mA*	LQFP 48
DM9000	✓	✓		10/100M		✓	✓		60+40mA*	LQFP 100
DM9010	✓	✓		10/100M	✓	✓	✓		52+40mA*	LQFP 100
DM9010B	✓	✓		10/100M	✓	✓	✓		130+40mA*	LQFP 100
DM9010BI	✓	✓		10/100M	✓	✓		✓	130+40mA*	LQFP 100
DM9102D			✓	10/100M	✓	✓	✓		52+40mA*	LQFP 128
DM9102H			✓	10/100M	✓	✓	✓		130+40mA*	LQFP 128
DM9102HI			✓	10/100M	✓	✓		✓	130+40mA*	LQFP 128

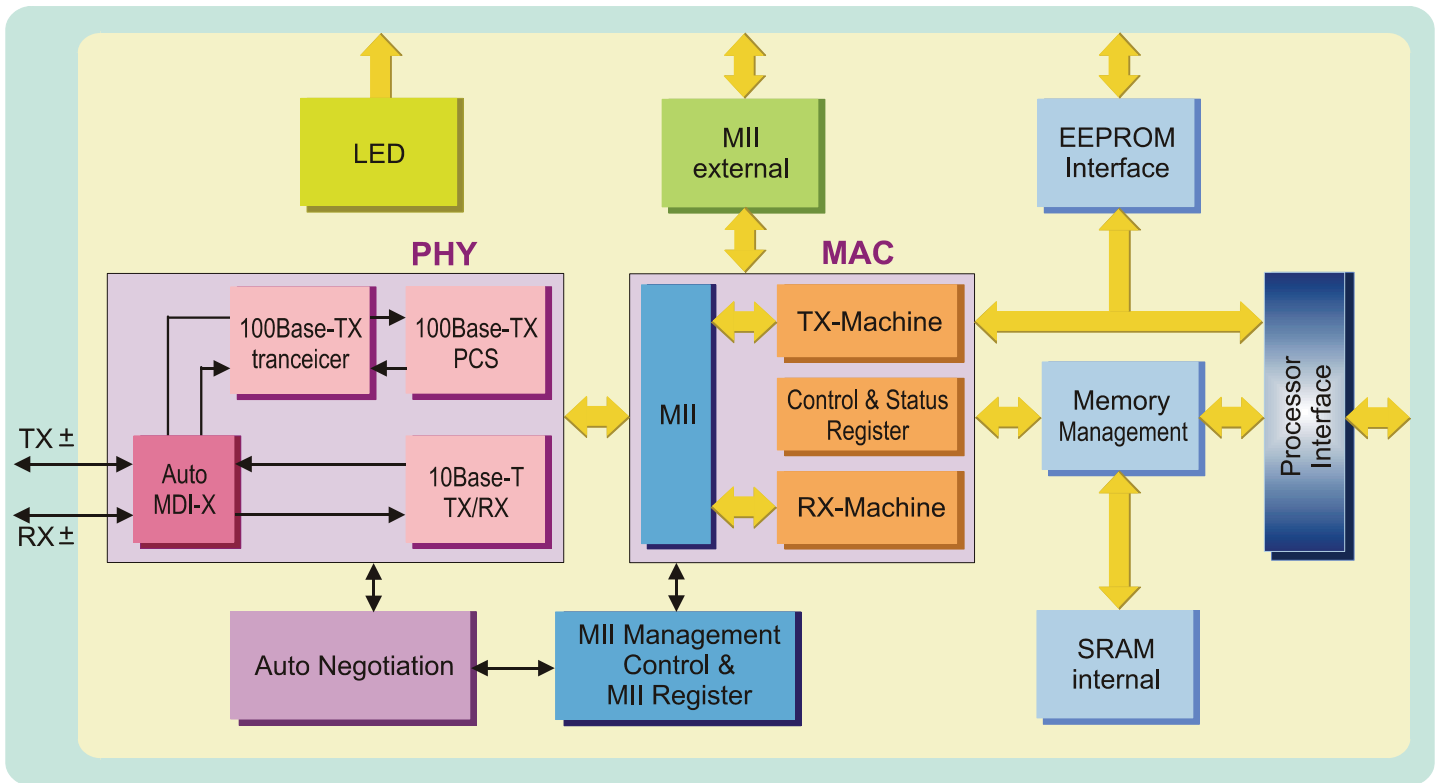
\*with transformer

### Features

- ◆ Integrated 10/100M PHY with Auto MDI-X
- ◆ Supports wake-up frame, link status change and Magic packet events for remote wake-up
- ◆ Build In regulator
- ◆ Compatible with 3.3V and 5.0V tolerant I/O
- ◆ Optional EEPROM configuration
- ◆ Supports early Transmit
- ◆ Supports IP/TCP/UDP Checksum generation and checking
- ◆ 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



## Block Diagram DM9010



## Applications

- ◆ VoIP CPE (ATA, IP Phone, Video Phone)
- ◆ IP STB, IPC, Internet Radio
- ◆ Industrial Control, Security, Networking

## Evaluation Board DM9000B

