DAVICOM
Connectivity Beyond Limits

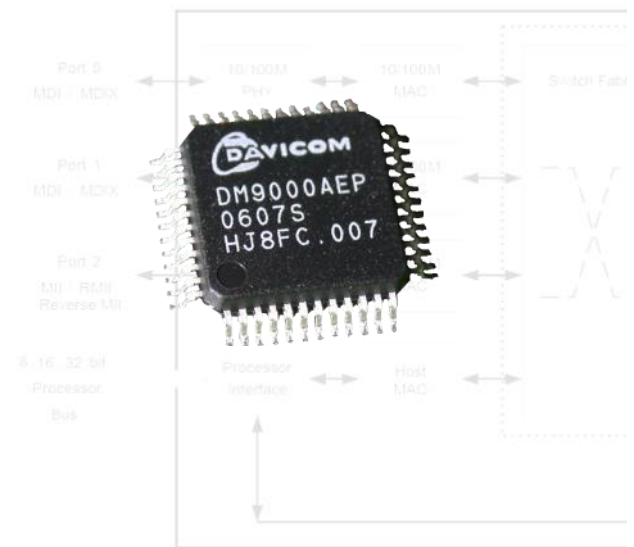# Embedded networking and Communication IC's

General Features

- Direct foundry support for high quality production
- Commercial and industrial temperature range
- Low current consumption with analog PHY
- Strong software driver development team
- Experienced in mixed signal design and high integration

DM9102 / DM90xx
Fast Ethernet MAC+PHY Controller

The single-port embedded ethernet controller chips support 8/16/32-Bit parallel and PCI Bus Interfaces. They integrate a Fast Ethernet MAC+PHY and 4k Dword SRAM in a low power and high performance process that supports 3.3V with 5V IO tolerance. All controllers are fully compliant to IEEE802.3 and support HP´s Auto MDI-X feature.

DM9000A, DM9010 and DM9102 are based on a power saving analog manufacturing process. DM9000B, DM9010B and DM9102H are more cost-effective due to a digital signal process. They are also available in industrial temp. range and 100% backward compatible to their predecessors.

All controllers support generation and validation of TCP/IP and UDP checksum to reduce application controller load. Early TX minimizes the latency of the device.

Typ \ Parameter	Interface			Ext. Interface	Copper	MDI-X PHY	Temperature range		Current [max.]	Package
	8/16-Bit	32-Bit	PCI	MII / RMII			0°...70°C	-40°...85°C		
DM9008C	✓				10M	✓	✓		130+40mA*	LQFP 48
DM9000A	✓				10/100M	✓	✓		52+40mA*	LQFP 48
DM9000B	✓				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
DM9102D			✓	✓	10/100M	✓	✓		52+40mA*	LQFP 128
DM9102H			✓	✓	10/100M	✓	✓	✓	130+40mA*	LQFP 128

*with transformer

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DM9161x / DM9162 / DM9163
Fast Ethernet Single PHY Transceiver

Davicom´s single-port PHY series are low power Physical Layer Transceiver in LQFP-48 and QFN-32 packages. They are fully compliant to IEEE 802.3, IEEE 802.3u 10Base-T / 100 Base-TX and ANSI X3T12 TP-PMD 1995 standards. DM9163 supports 8kV isolation voltage and 3.3V at center tabs.

Parameter / Typ	Interface MII / RMII	Copper	Fiber	MDI-X	50 MHz RMII clock output	Temperature range 0°...70°C	Temperature range -40°...85°C	Current [max.]	Package
DM9161	✔	10/100M	100FX			✔		48+40mA*	LQFP 48
DM9161A	✔	10/100M		✔		✔		52+40mA*	LQFP 48
DM9162	✔	10/100M	100FX	✔	✔	✔	✔	90+40mA*	LQFP 48 QFN32
DM9163	✔	10/100M	100FX	✔	✔		✔	90+40mA*	LQFP 48

DM8x8x / DM9xx6
Fast Ethernet Switch Controller

Davicom offers cost-effective 2-, 3- and 6-port switch controllers for industrial and consumer applications with low current consumption.
DM8603 and DM8806 are 10/100Base-TX/FX 3- and 6-port Layer-2.5 switches with MII, RMII and Reverse MII. Additional features of DM8806 are IEEE802.3az Energy Efficient Ethernet, Fiber mode FEF, MSTP, WOL, cut-through and 1.8, 3.3 and 5.0V tolerant I/Os. Both can be used as TX–FX Media Converters.

DM9006 is a 10/100Base-TX 2-port Layer-2 switch controller with 8- and 16-Bit Bus Interface. DM9016 adds 32-Bit Bus Interface and external MII. DM9106 is similar to DM9016 with PCI Bus instead of parallel Bus Interface.

Parameter / Type	8Bit 16Bit	32 Bit	PCI	MII / RMII	RGMII	Copper	MDI-X PHY	Ports	STP	0°... 70°C	-40°... 85°C	Current [max.]	Package
DM8603				✔		10/100M	2	2	✔ + RSTP	✔	✔	280+80mA*	LQFP 64
DM9006	✔					10/100M	2	2	✔	✔	✔	280+80mA*	LQFP 64
DM9016	✔	✔		✔		10/100M	2	3	✔	✔	✔	280+80mA*	LQFP 128
DM9106			✔	✔		10/100M	2	3	✔	✔	✔	350+80mA*	LQFP 128
DM8806				✔	✔	10/100M 1000M	5	6	✔	✔	✔	510+240mA*	QFP 128

*with transformer