



DM8x0x/DM9xx6 Switch Controller

Davicom offers cost-effective 2-, 3- and 6-port switch controllers for industrial and consumer applications with low power consumption.

DM8603 and DM8806 are 10/100Base-TX/FX 3- and 6-port Layer-2.5 switches with MII, RMII and Reverse MII. DM8806 supports GMII and RGMII via one Gigabit MAC. Additional features of DM8806 are **IEEE 1588** Precision Time Protocol, **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 parallel Interface. DM9016 adds 32-Bit Bus Interface and external MII. DM9106 is similar to DM9016 with PCI instead of parallel Interface.

The ports are **individually configurable**. **Cascading-** and **ring-architectures** can be realized. The switches generate and verify the TCP/UDP and IPv4 checksum to reduce application controller load. IGMP v1, v2, snooping, Spanning Tree Protocol (STP) and RSTP, IPv6 and Port Security are being supported.

The integrated PHYs are **IEEE 802.3u** compliant and support Auto MDI-X. Different power-down modes reduce power consumption. DM8806 can internally generate 50MHz reference clock-out in RMII mode .

Parameter Type	Interface					Copper	Fiber	MDI-X PHY	Ports	STP	Temperature		Current [max.] mA	Package
	8Bit 16Bit	32 Bit	PCI	MII / RMII	GMII / RGMII						0°... 70°C	-40°... 85°C		
DM8603				✓		10/100M	100FX	2	2	✓ +RSTP	✓	✓	280+80*	64-LQFP
DM9006	✓					10/100M	100FX	2	2	✓	✓	✓	280+80*	64-LQFP
DM9016	✓	✓		✓		10/100M	100FX	2	3	✓	✓	✓	280+80*	128-LQFP
DM9106			✓	✓		10/100M	100FX	2	3	✓	✓	✓	350+80*	128-LQFP
DM8806				✓	✓	10/100M 1000M	100FX	5	5+1 4+2	✓ +MSTP	✓	✓	510+200*	128-QFP

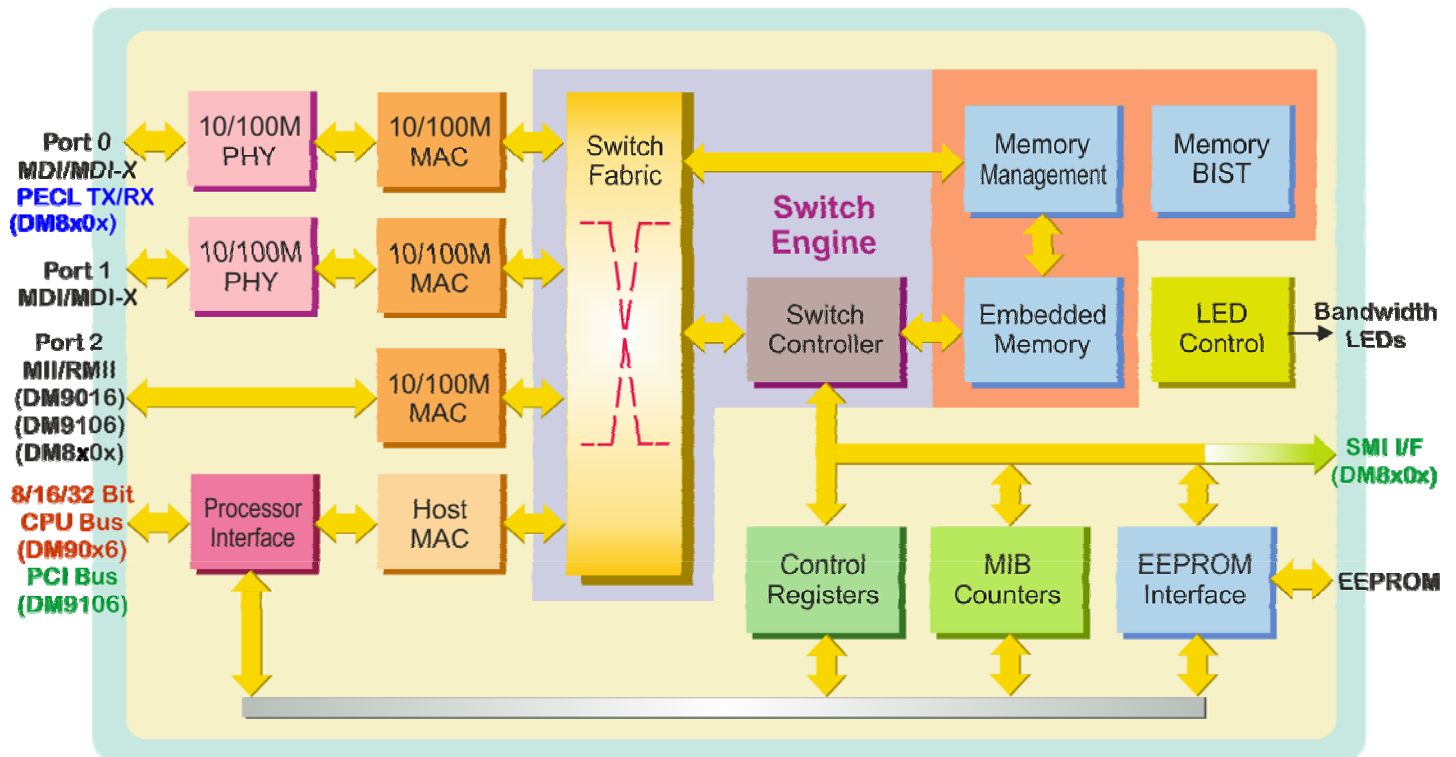
*with transformer

General Features

- Integrated 10/100 Auto MDI-X PHY
- IPv4 and IPv6 support
- TCP/UDP/IPv4 checksum offload
- Supports Early TX
- IGMP v1, v2 snooping
- Port Security
- Spanning Tree Protocol (**+RSTP DM8603 + MSTP DM8806**)
- Store-and-Forward and Cut-Through (**DM8806 only**)
- QoS
- System clock up to 100 MHz
- MII, RMII, Reverse MII, GMII and RGMII Interface
- 8/16/32-Bit parallel Interface or PCI



Block Diagram DM9016 & Family



Applications

- VoIP CPE (ATA, IP Phone, Video Phone)
- Cascading of Devices
- Industrial Automation, Security, Networking
- Medical Terminals, Solar Inverter

Evaluation Board DM9016

