



DM9003EP Product Brief

Two Port Ethernet Switch Controller with 16-bit Processor

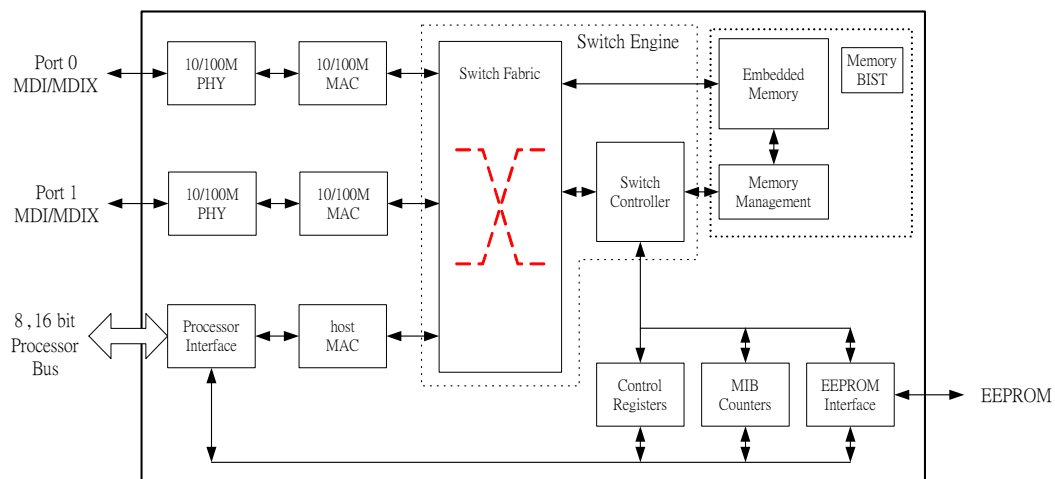
Interface

Dec. 2006 Rev.1.0

The DM9003EP is a fully integrated, high performance and cost-effective fast Ethernet switch controller with one general processor bus interface, two ports 10/100Mb PHY. Each port of the DM9003EP provides four priorities transmit queues that can be defined by port-based, 802.1p VLAN, or IP packet ToS field automatically, to fit the various bandwidth and latency requirement of data, voice, and video application. Each port also supports ingress and/or egress rate control to provide proper bandwidth. And up to 16 groups of 802.1Q VLAN with Tag/Un-tag functions are supported to provide efficient packet forwarding.

The TCP/UDP/IPv4 checksum generation and checking functions are also provided by processor port to offload the processor compute loading. The integrated two ports PHY are compliant with IEEE 802.3u standards and support HP auto-MDI/MDIX for twisted pair cables transmit/receive direction switching automatically.

Block Diagram



Specifications

- ❑ Ethernet Switch with two 10/100Mb PHY and 16-bit general processor interface
- ❑ Processor bus slave architecture
- ❑ EEPROM interface for power up configurations
- ❑ Support TCP/UDP/IPv4 checksum offload
- ❑ Support HP Auto-MDIX
- ❑ Support IEEE 802.3x Flow Control in Full-duplex mode
- ❑ Support Back Pressure Flow Control in Half-duplex mode
- ❑ Per port support 4 priority queues by Port-based, 802.1P VLAN, and IP TOS priority
- ❑ Support 802.1Q VLAN up-to 16 VLAN group
- ❑ Support VLAN ID tag/un-tag options
- ❑ Per port support bandwidth, ingress and egress rate control
- ❑ Support Broadcast Storming filter function
- ❑ Support Store and Forward switching approach
- ❑ Support up-to 1K Uni-cast MAC addresses
- ❑ Automatic aging scheme
- ❑ Support MIB counters for diagnostic
- ❑ 64-pin LQFP 1.8V internal core, 3.3V I/O with 5V tolerant

Application

- ❑ VoIP CPE (ATA, IP Phone)
- ❑ IP STB
- ❑ Industrial Control

Ordering Information

Part Number	Pin Count	Package
DM9003EP	64	LQFP (Pb-free)

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