



DM8203EP Product Brief

10/100Mbps 2-port Ethernet Switch Controller with

MII/RMII Interface

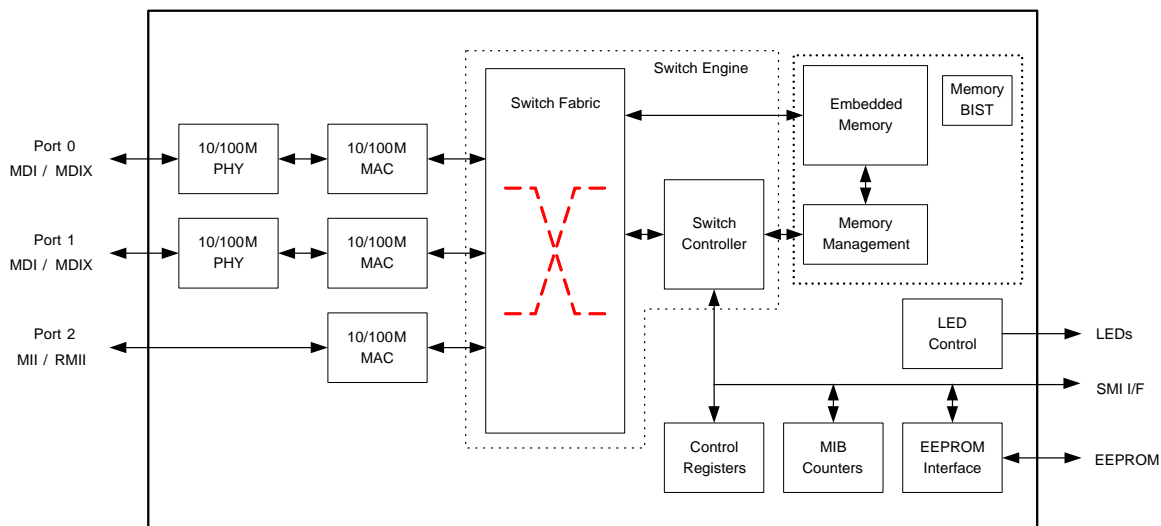
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The DM8203 is a fully integrated, high performance, and cost-effective fast Ethernet switch controller, built-in two ports 10M/100Mbps PHY and one port MII or RMII interface.

The internal memory of the DM8203 supports up to 1K uni-cast MAC address table, it is provided for three ports' usage. Each port of the DM8203 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. Each port provide the MIB counters and loop-back capability and the build in memory self test (BIST) for system and board level diagnostic.

The integrated two ports PHY are compliant with IEEE 802.3u standards. The MII interface provides the flexibility to connect Ethernet PHY, and it can be configured to Reversed MII interface for SoC with MII interface. An alternative interface, the RMII interface, is also provided to connect the lower pin count Ethernet PHY or SoC with RMII interface.

Block Diagram



Features

- ❑ Ethernet Switch with two 10/100Mbps PHY, one MII/RMII
- ❑ Support Reverse-MII
- ❑ EEPROM interface for power up configurations
- ❑ 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/untag 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
- ❑ Support Serial data management interface
- ❑ Automatic aging scheme
- ❑ Support MIB counters for diagnostic
- ❑ 64-pin LQFP 1.8V/3.3V dual power and 3.3V I/O with 5V tolerant

Application

- VoIP CPE (ATA, IP Phone)
- IP STB
- Industrial Control
- POS
- Internet Radio

Ordering Information

Part Number	Pin Count	Package
DM8203EP	64	LQFP (Pb-free)

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