

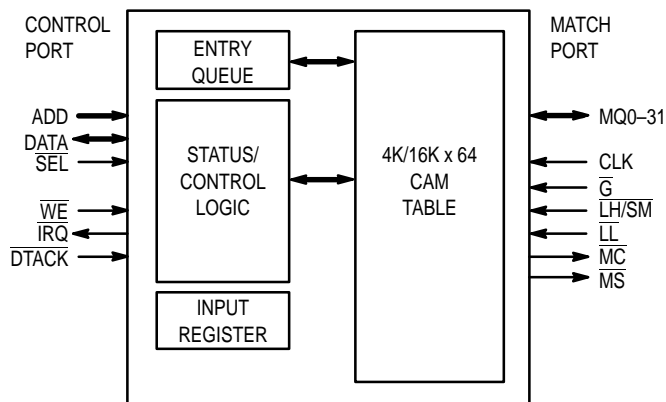
MCM69C232 MCM69C432

Content Addressable Memories for High Performance Internetworking and Fully Associative Disk Drive Cache Applications

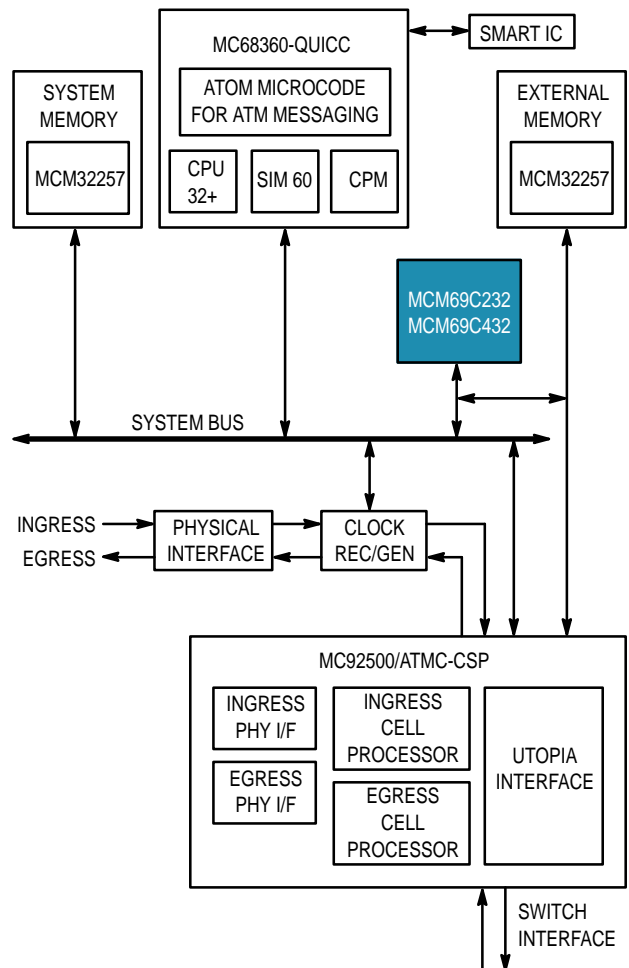
4K x 64 AND 16K x 64 CAMS:

The MCM69C232 and the MCM69C432 are flexible content-addressable memories (CAM) that can contain 4096 and 16,384 entries of 64 bits, respectively. They are implemented with standard 4-transistor SRAM cells that provide a CAM solution at a fraction of the cost of existing CAMs. The widths of the match field and the output field are programmable, and the match time is designed to be ≤ 180 nanoseconds. As a result, the MCM69C232 and the MCM69C432 are well suited for datacom applications such as Virtual Path Identifier/Virtual Circuit Identifier (VPI/VCI) translation in ATM switches up to OC12 (622 Mbps) data rates and Media Access Control (MAC) address lookup in Ethernet/Fast Ethernet bridges. CAMs are also well suited for fully associative disk drive cache and RAID applications. The match duty cycle of the MCM69C232 and the MCM69C432 is user defined, with a trade-off between the time between matches and the number of new entries added to the CAM per second.

MCM69C232 AND MCM69C432 BLOCK DIAGRAM



LINE CARD BLOCK DIAGRAM



The Product:

MCM69C232 Features:

- Production Now
- Volume Pricing < \$20
- 4096 Entries
- Programmable 12- to 64-Bit Wide Match Field
- 160 ns Match Time
- 150 ns Insertion Time if 1 of 12 Entry Queue Locations is Empty


MCM69C432 Features:

- Production Now
- Volume Pricing < \$50
- 16,384 Entries
- Programmable 14- to 64-Bit Wide Match Field
- 180 ns Match Time
- 150 ns Insertion Time if 1 of 14 Entry Queue Locations is Empty

Common Features:

- Mask Register to "Don't Care" Selected Bits
- Depth Expansion by Cascading Multiple Devices
- Programmable 0- to 32-Bit Output Value
- Separate Ports for Control and Match Operations
- 10 ms Initialization Time after Fast Insertion (at Power-Up Only)
- Single 3.3 V \pm 5% Supply
- IEEE Standard 1149.1 Test Port (JTAG)
- 100-Pin TQFP Package

For additional information call **512-933-SRAM**, or your local Motorola sales representative.
FAX (512) 933-6809

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