PRELIMINARY **CYM7432**

256K Pentium™-Compatible Cache Module

Features

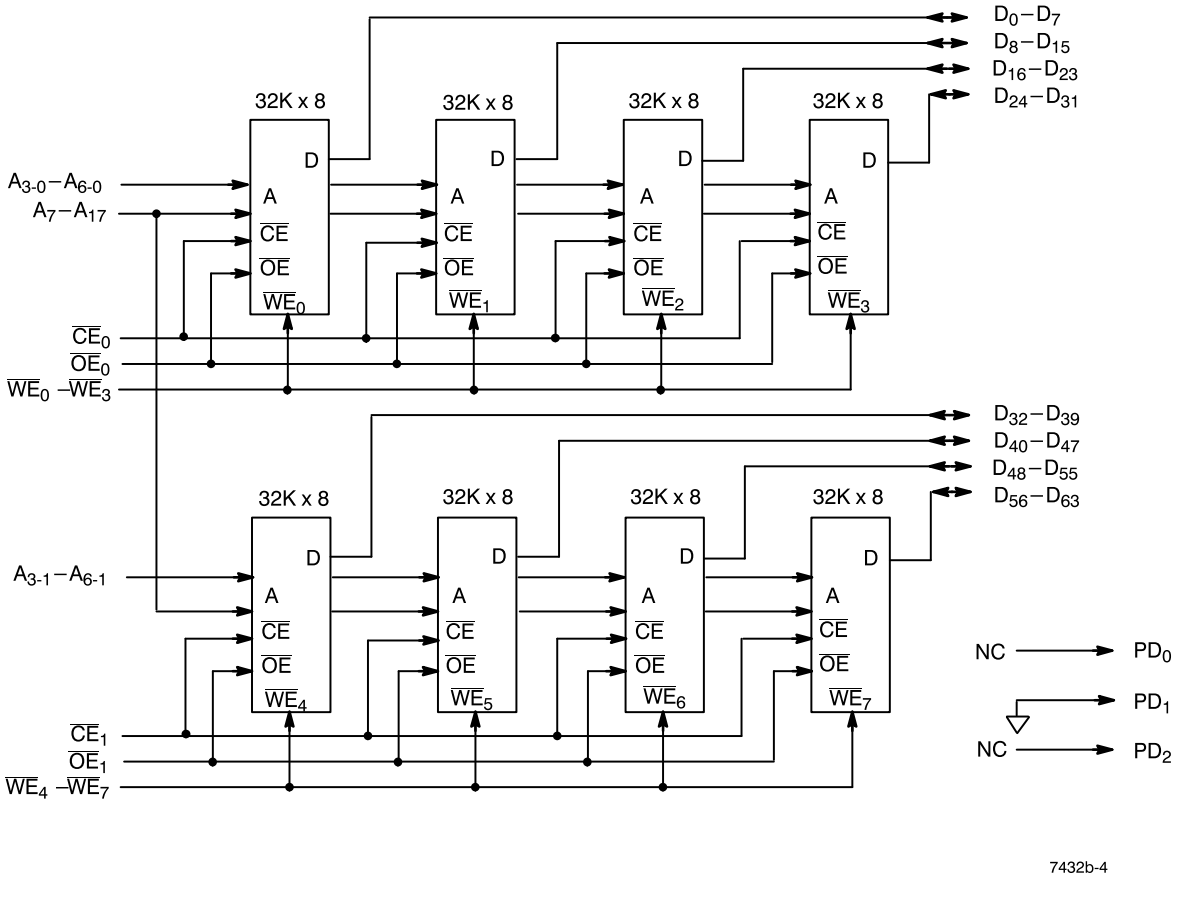
- **256-Kbyte secondary cache module organized as 32K by 64**
- **Ideal for Intel™ Pentium-based systems and systems with 64-bit data**
- **Operates with 60- and 66-MHz Pentium processors**
- **Uses cost-effective CMOS asynchronous SRAMs**
- **On-board decoupling capacitors offer improved noise immunity**
- **160-position Burndy Computerbus™ connector**
- **5V (±5%) power supply**
- **TTL-compatible inputs/outputs**

Functional Description

The CYM7432 is a 256-Kbyte secondary cache module designed for Intel Pentium CPU-based systems. The 32K by 64 organization is designed using asynchronous CMOS SRAMs to provide a low-cost, low-power, and high-performance solution for CPU speeds up to 66 MHz. CYM7432−12 contains 12 ns SRAMs suitable for 66-MHz operations. For 60-MHz applications, CYM7432−15 with 15 ns SRAMs can be used. Multiple ground pins and on-board decoupling capacitors ensure maximum protection from noise.

All components on the cache module are surface mounted on a multi-layer epoxy laminate (FR-4) substrate. The package dimensions are 4.35″ x 0.365″ x 0.7″. All inputs and outputs of the CYM7432 are TTL compatible and operate from a single 5V power supply. The contact pins are plated with 100 micro-inches of nickel covered by 5 micro-inches of gold flash.

Logic Block Diagram



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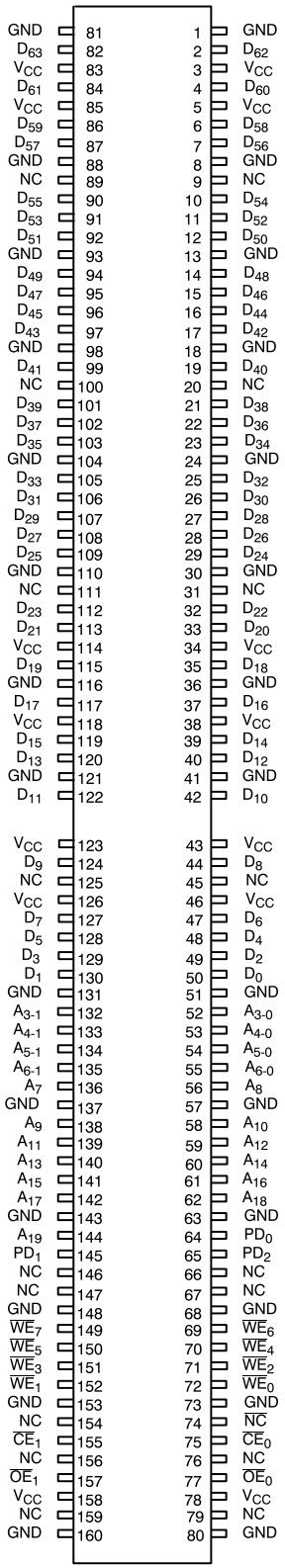
Pin Configuration

Dual Read-out SIMM

Top View



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Maximum Ratings

(Above which the useful life may be impaired. For user guidelines, not tested.)

Storage Temperature ..... −55°C to +125°C

Ambient Temperature with Power Applied ..... −0°C to +70°C

Supply Voltage to Ground Potential ..... −0.5V to +7.0V

DC Voltage Applied to Outputs in High Z State ..... −0.5V to +7.0V

DC Input Voltage ..... −0.5V to +7.0V

Output Current into Outputs (LOW) ..... 20 mA

Operating Range

Range	Ambient Temperature	V_{CC}
Commercial	0°C to +70°C	5V ± 5%

Electrical Characteristics Over the Operating Range

Parameter	Description	Test Conditions	CYM7432		Unit
			Min.	Max.	
V_{OH}	Output HIGH Voltage	V_{CC} = Min., I_{OH} = −4 mA	2.4		V
V_{OL}	Output LOW Voltage	V_{CC} = Min., I_{OL} = 8 mA		0.4	V
V_{IH}	Input HIGH Voltage		2.2	V_{CC}+0.3	V
V_{IL}	Input LOW Voltage		−0.5	0.8	V
I_{CC}	V_{CC} Operating Supply Current	V_{CC}=Max., I_{OUT}=0 mA, f=f_{MAX}=1/t_R		1450	mA

Ordering Information

Operating Frequency (MHz)	Ordering Code	Package Name	Package Type	Operating Range
66	CYM7432PB−12C		160-Pin Dual-Readout SIMM	Commercial
60	CYM7432PB−15C		160-Pin Dual-Readout SIMM	Commercial

Document #: 38−M−00068

Package Diagram