



Am27C1024

1 Megabit (65,536 x 16-Bit) CMOS EPROM

Advanced
Micro
Devices

DISTINCTIVE CHARACTERISTICS

- High Speed Flashrite™ programming
- Fast access time — 90 ns
- Low power consumption:
 - 100 μ A maximum standby current
- Programming voltage: 12.75 V
- Single +5-V power supply
- JEDEC-approved 40-pin DIP and 44-pad LCC pinouts
- $\pm 10\%$ power supply tolerance available
- Latch-up protected to 100 mA from -1 V to $V_{CC} + 1$ V

GENERAL DESCRIPTION

The Am27C1024 is a 1 megabit, ultraviolet erasable programmable read-only memory. It is organized as 64K words by 16 bits per word, operates from a single +5-V supply, has a static standby mode, and features fast single address location programming. The x16 organization makes the Am27C1024 ideal for use in 16-bit microprocessor systems. Products are available in windowed ceramic DIP and LCC packages, as well as plastic one-time programmable (OTP) packages.

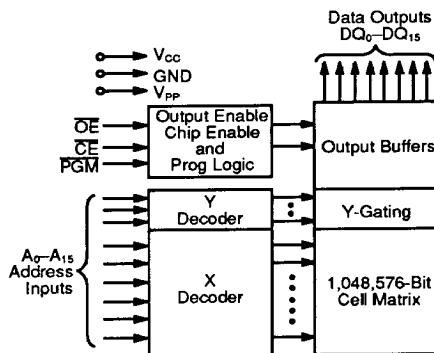
Any byte can be accessed in less than 90 ns, allowing operation with high-performance microprocessors with reduced WAIT states. The Am27C1024 offers separate Output Enable ($\overline{OE}$) and Chip Enable ($\overline{CE}$) controls, thus

eliminating bus contention in a multiple bus microprocessor system.

AMD's CMOS process technology provides high speed, low power, and high noise immunity. Typical power consumption is only 125 μ W in active mode, and 350 μ W in standby mode.

All signals are TTL levels, including programming signals. Bit locations may be programmed singly, in blocks, or at random. The Am27C1024 supports AMD's Flashrite programming algorithm (100 μ s pulses) resulting in typical programming times of less than 20 seconds.

BLOCK DIAGRAM



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PRODUCT SELECTOR GUIDE

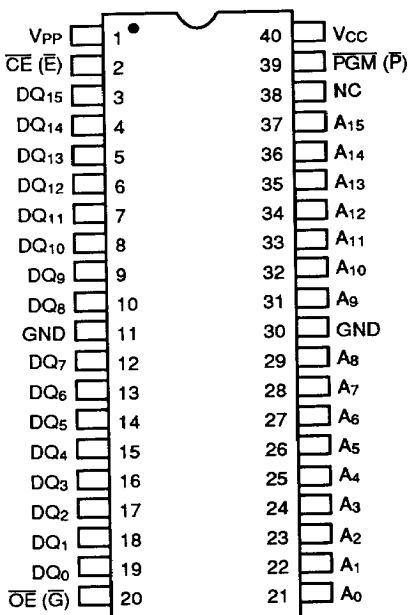
Family Part No.	Am27C1024							
Ordering Part No:								
±5% V_{CC} Tolerance	-95	-105	-125	-155	-175	-205	-255	-305
±10% V_{CC} Tolerance	—	-100	-120	-150	-170	-200	-250	-300
Max. Access Time (ns)	90	100	120	150	170	200	250	300
$\overline{CE}$ ($\overline{E}$) Access (ns)	90	100	120	150	170	200	250	300
$\overline{OE}$ ($\overline{G}$) Access (ns)	40	50	50	65	65	75	100	120

Flashrite is a trademark of Advanced Micro Devices, Inc.

Publication # 06780 Rev. E Amendment #0
Issue Date: April 1990

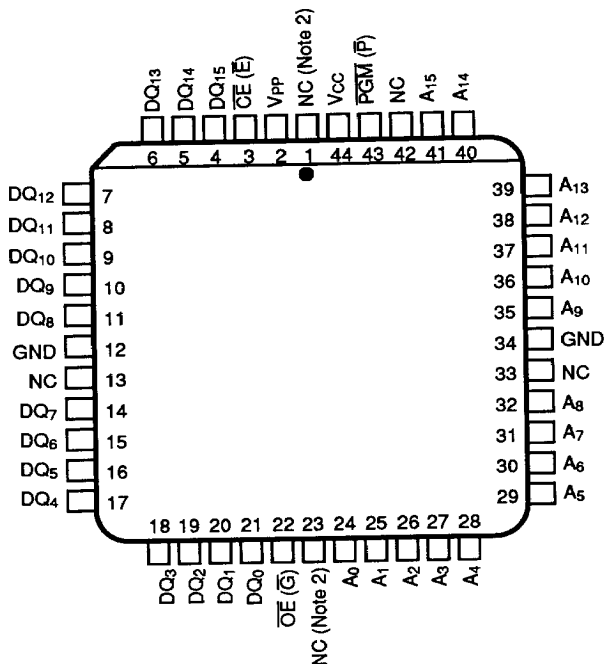
CONNECTION DIAGRAMS Top View

DIPs



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LCC*



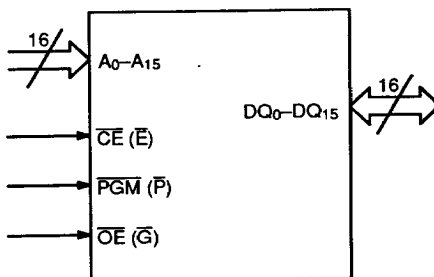
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*Also available in a 44-Pin Plastic Leaded Chip Carrier.
Notes: 1. JEDEC nomenclature is in parenthesis
2. Don't use (DU) for PLCC

Pin Designations

A ₀ –A ₁₅	Address Inputs	V _{CC}	V _{CC} Supply Voltage
$\overline{CE}$ (E)	Chip Enable Input	V _{PP}	Program Supply Voltage
DQ ₀ –DQ ₁₅	Data Input/Outputs	GND	Ground
$\overline{OE}$ (G)	Output Enable Input	NC	No Internal Connect
PGM (P)	Program Enable Input	DU	No External Connect

LOGIC SYMBOL



06780-004E