



# 8237A HIGH PERFORMANCE PROGRAMMABLE DMA CONTROLLER (8237A-5)

- Enable/Disable Control of Individual DMA Requests
- Four Independent DMA Channels
- Independent Autoinitialization of All Channels
- Memory-to-Memory Transfers
- Memory Block Initialization
- Address Increment or Decrement
- High Performance: Transfers up to 1.6M Bytes/Second with 5 MHz 8237A-5
- Directly Expandable to Any Number of Channels
- End of Process Input for Terminating Transfers
- Software DMA Requests
- Independent Polarity Control for DREQ and DACK Signals
- Available in EXPRESS — Standard Temperature Range
- Available in 40-Lead Cerdip and Plastic Packages

(See Packaging Spec, Order #231369)

The 8237A Multimode Direct Memory Access (DMA) Controller is a peripheral interface circuit for microprocessor systems. It is designed to improve system performance by allowing external devices to directly transfer information from the system memory. Memory-to-memory transfer capability is also provided. The 8237A offers a wide variety of programmable control features to enhance data throughput and system optimization and to allow dynamic reconfiguration under program control.

The 8237A is designed to be used in conjunction with an external 8-bit address latch. It contains four independent channels and may be expanded to any number of channels by cascading additional controller chips. The three basic transfer modes allow programmability of the types of DMA service by the user. Each channel can be individually programmed to Autoinitialize to its original condition following an End of Process (EOP). Each channel has a full 64K address and word count capability.

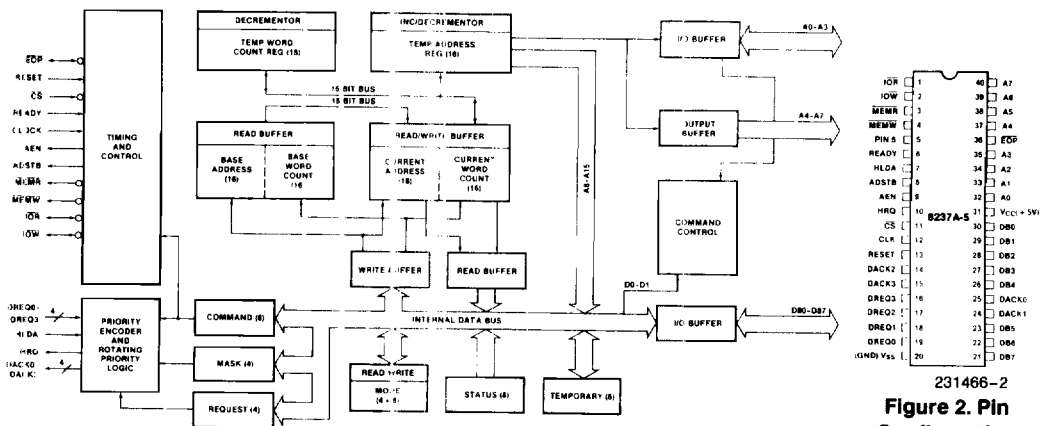


Figure 1. Block Diagram

231466-1

231466-2  
Figure 2. Pin Configuration

The complete document for this product is available on Intel's "Data-on-Demand" CD-ROM product. Contact your local Intel field sales office, Intel technical distributor, or call 1-800-548-4725.

September 1993

Order Number: 231466-005