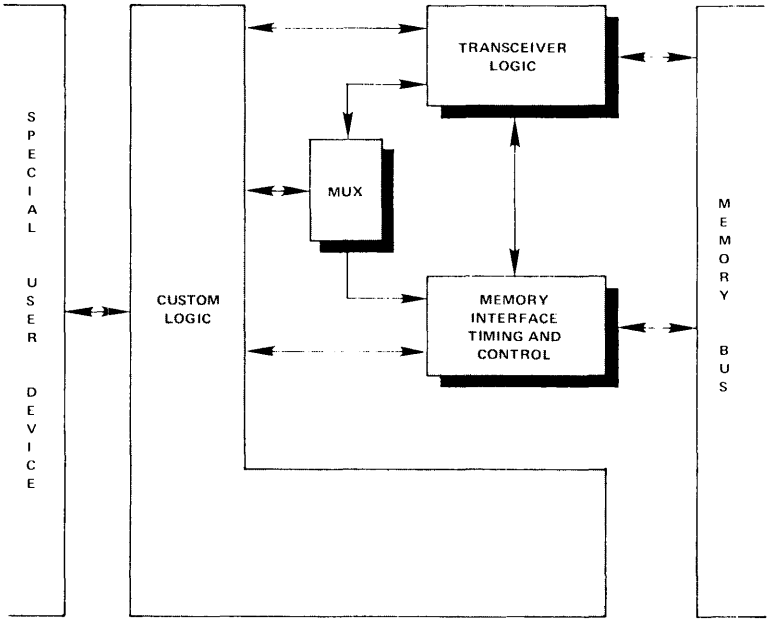
INTERDATA

SYSTEM MODULES



EDMA Logic Interface

PRODUCT DESCRIPTION

The Extended Direct Memory Access Logic Interface is designed specifically for applications where a custom controller is to be interfaced directly to a 32-bit processor memory bus. The interface incorporates the logic to function with the high quality, high speed direct memory access bus and a custom design capability for adding up to 113 integrated circuits.

FEATURES

- Up to 6.5 Million Bytes per Second Transfer Rate
- Includes All Memory Handshake Logic
- Addressable to 1 Million Bytes
- 113 Custom Design Integrated Circuit Positions

OPERATIONAL CHARACTERISTICS

The EDMA Logic Interface contains the minimum logic to insure the integrity of the high quality memory bus of an Interdata 32-bit processor. This allows custom designers to integrate specific logic on the interface printed circuit board without fear of degradation to the memory bus, thereby allowing the use of lower cost logic components. All timing and control signals between the user designed logic and memory are intercepted and appropriate response initiated by the interface logic.

The built-in logic allows the user custom logic to determine the address of the data, address range, transfer rate to be employed and command data to be used. Designed to function with memory timing and commands, the logic responds to read halfword or fullword, read and set halfword, write halfword or fullword and burst read or write. The maximum data transfer rate is 6,500,000 bytes per second. The minimum burst transfer rate is 400,000 bytes per second. In addition, the logic allows crossing memory bank boundaries thereby providing a full megabyte address range for contiguous memory data access. Communication with the Input/Output Multiplexor Bus is possible using one of the two back panel connectors on the interface board.

Each of the 113 custom design logic positions allows user implementation of 14 or 16 pin dual in line integrated circuits or an assortment of axial lead discrete components. Wire wrap posts are positioned for ease of interconnecting the logic. Two 50 pin user connectors are installed on the interface and a pair of mating connectors for cable connection provided.

SPECIFICATIONS

Data Transfer Rate	6,500,000 Bytes per second (maximum)
Configuration	Local Memory or Extended Memory
Address Range	1,000,000 Bytes
Commands	Read Halfword Read/Set Halfword Read Fullword Read Burst Write Halfword Write Fullword Write Burst
Custom Logic	113 Integrated circuit positions
Type of Custom Logic	14 or 16 pin dual in line integrated circuits or axial lead discrete components
Dimensions	15 x 15 inch (38.1 x 38.1 cm) printed circuit board
Weight	1.5 pounds (0.7 Kg)
Power (basic logic)	+5VDC, 1.5 Amperes
Environmental	
Temperature	0 to 50°C operating
Humidity	0 to 90% no condensation

INTERDATA PRODUCT NUMBER

M48-020	Extended Direct Memory Access Logic Interface for custom logic designs.

INTERDATA
Subsidiary of PERKIN ELMER • Oceanport, New Jersey 07757

Printed in U.S.A.

9761039