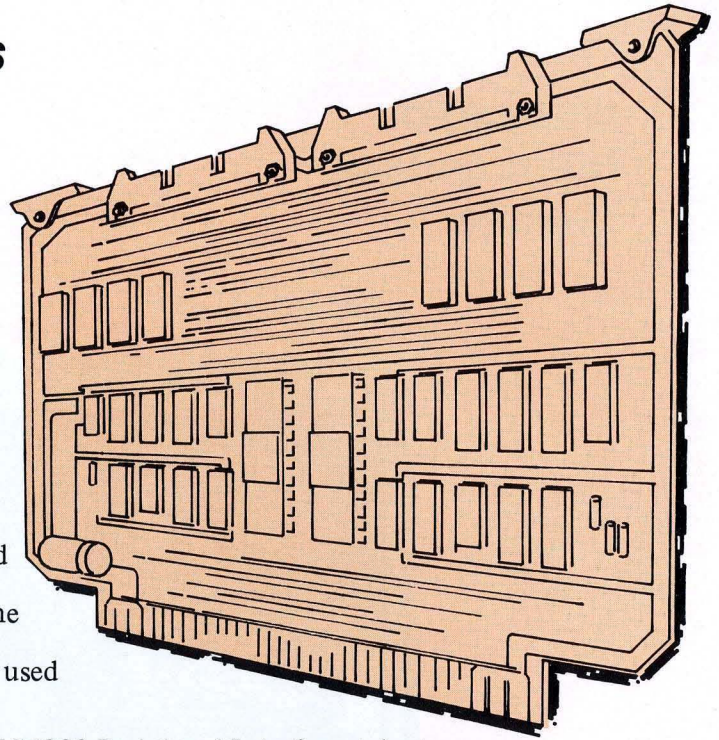


MEX6820

Input/Output Module



- Four 8-bit input/output ports for peripheral interfacing
- Eight individually controlled interrupt lines – four of which may be used as peripheral control lines
- Program controlled maskable interrupt capability
- Each MC6820 Peripheral Interface Adapter addressed as memory
- Switch selectable base memory address for each of the two MC6820 Peripheral Interface Adapter devices
- Provisions on the module for wirewrap sockets to be used in constructing custom interface circuitry

The MEX6820 Input/Output Module, containing two MC6820 Peripheral Interface Adapters (PIA's), provides a flexible means of interfacing the EXORciser with a user's defined process or peripheral device. This module, in effect, connects the two PIA's between the MPU and the peripheral device(s). The designer has the option of interfacing a peripheral directly to the PIA's TTL voltage compatible I/O ports and control lines, or through custom interface circuitry. (The peripheral interface lines of the PIA are PA0-PA7, PB0-PB7, CA1, CA2, CB1, and CB2.) The I/O Module has provisions for standard 14, 16, and 24 pin wirewrap sockets, thus permitting the construction of custom interfacing circuits on the module.

The EXORciser's MC6800 MPU addresses each of the PIA's as four locations in memory. Address switches allow the user to select base memory locations for each PIA. Altering the settings of the address enable/disable switches sets up the Input/Output Module to emulate a design that may or may not use all 16 address lines. Address decoders determine when the MPU is addressing a particular PIA's register and also signal the control logic to decode its inputs. The control logic, by decoding the MPU timing and control signals, manages the data flow through the I/O Module's buffers. These three-state buffers interface the I/O Module to the MC6800 MPU over the EXORciser bus.

MEX68IC I/O Interconnection Cables are used to connect an Input/Output Module to a peripheral. One end of this flatribbon cable is terminated with a 50-pin flatribbon connector; the other end is not terminated. Two MEX68IC cables should be ordered with each MEX6820 Input/Output Module.

Specifications

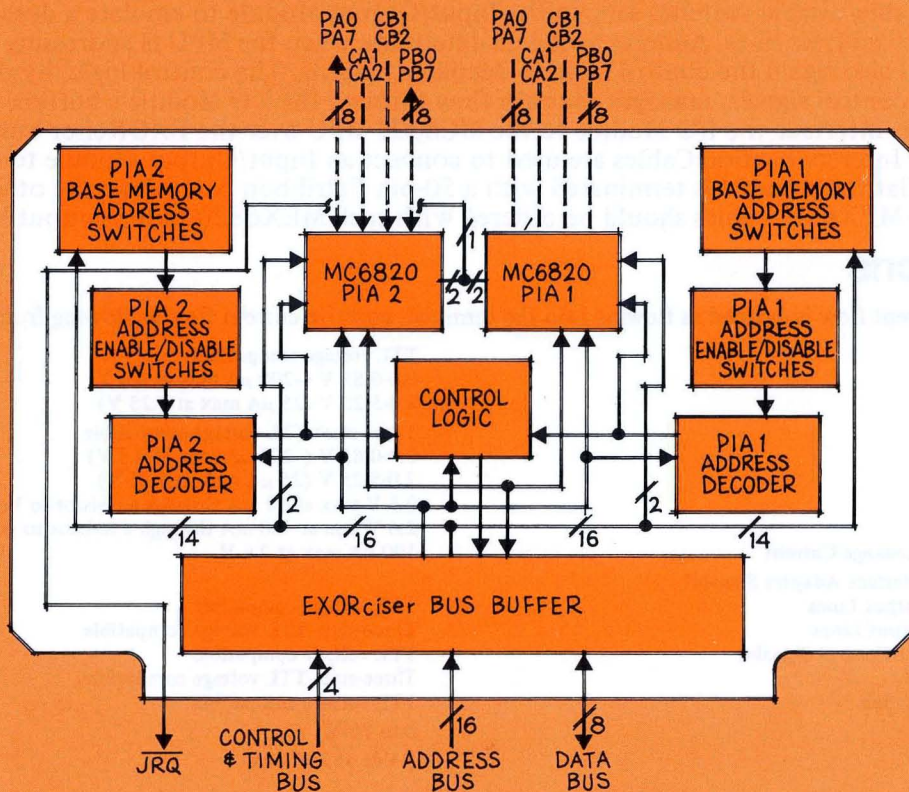
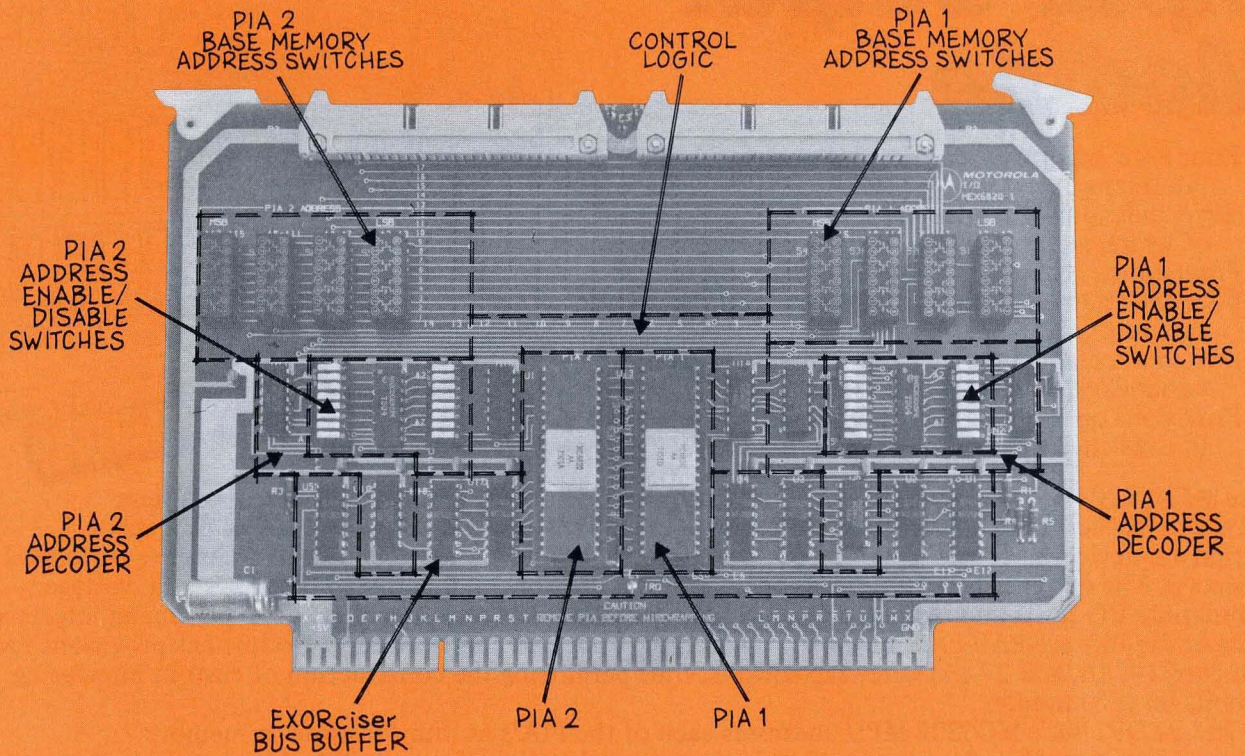
(Note: Positive current flow is defined as flowing into the terminal, negative current flow as flowing from the terminal.)

Input Signals	TTL voltage compatible
Logic "0"	0.0-0.85 V (-200 μ A max at 0.4 V)
Logic "1"	2.0-5.25 V (25 μ A max at 5.25 V)
Data Bus	Three-state TTL voltage compatible
Input Logic "0"	0.0-0.85 V (-200 μ A max at 0.4 V)
Input Logic "1"	2.0-5.25 V (25 μ A max at 5.25 V)
Output Logic "0"	0.5 V max at 40 mA through a resistor to V _{CC}
Output Logic "1"	2.6 V min at -10 mA through a resistor to ground
Output Off-State Leakage Current	100 μ A max at 2.6 V
MC6820 Peripheral Interface Adapter Signals*	TTL voltage compatible
PA0-PA7 Input/Output Lines	Three-state TTL voltage compatible
PB0-PB7 Input/Output Lines	TTL voltage compatible
CA1, CA2, and CB1 Control Signals	Three-state TTL voltage compatible
CB2 Control Signal	TTL voltage compatible
IRQA and IRQB Signals	0 to 70°C
Operating Temperature	5 Vdc at 2 A max
Power Requirements	9.75 x 5.75 x 0.062 in.
Physical Dimensions	
W x H x T	

*See MC6820 data sheet for specifications on these signals.

MEX6820 Input/Output Module

Option



MOTOROLA Semiconductor Products Inc.

BOX 20912 • PHOENIX, ARIZONA 85036 • A SUBSIDIARY OF MOTOROLA INC.