

CC4000-MFIO1 Multifunction I/O Board

for Honeywell 4400, 4500, 45000

General Description

The CC4000-MFIO1 is an intelligent I/O board for use in the Honeywell 4400, 4500, and 45000 computers. It will directly replace the PX4000-PTTA1 and 4DP3AAXPV11 I/O boards used in the Geniebus without modifications to RTMOS software. The MFIO1 offers enhancements not possible with those standard boards. These include data rates to 38,400 baud, data buffering, XON/XOFF detection, dual porting, password protection, and programmability to handle virtually any type of device or communications protocol.

The power and flexibility of the MFIO1 I/O board comes from a unique blend of hardware and firmware. It is based around a Z80 microprocessor with 64KB of local RAM and 8KB of EPROM. The RAM is used for data buffering and program storage, and the EPROM contains the operating program for the board. All of the data transfers between the Honeywell computer and the peripheral device are handled by the Z80. This allows the board to control the data flow and format to the device while being totally transparent to the RTMOS software.

The MFIO1 card has two complete serial ports, either RS232 or current loop. One port is considered as the "primary" port, while the other is the "secondary" port. In general applications, the peripheral device is connected to the primary port and is controlled by the hardware. The secondary port is under local software control and can be used for changing the operating parameters of the board or monitoring the operation of the primary port.

As an option, the board may operate fully dual ported. Each port may be treated as "primary", with output being directed to the proper port. To do this, the S' bits are used to modify the operate command such that output will go to port 1, port 2, or to both.

Features:

- Selectable data rates from 300 to 38,400 baud.
- Data buffering to 55K bytes, for both output and input.
- Data flow control using XON and XOFF.
- Password protection by CPU controlled character echo.
- Dual ported operation for local and remote operation.
- Direct replacement of either AXPV11 or PTTA1.
- Connection of any device, such as PC's and LAN controllers.

Because the board is fully programmable, virtually any option, protocol, device, or application may be handled. Special applications may include control algorithms, special data links, special modem control, and more.

A special version of the MFIO1 board is available with a serial cable to replace the parallel Honeywell Line Printer with any serial printer, including laser printers. This version of the MFIO1 board replaces the PBCN1 line printer interface, communicating with the Honeywell computer as if it were the PBCN1. The board communicates with the printer as a serial device, and can be configured to transmit the escape codes necessary to print output on a laser printer in landscape mode.

Price: \$2,995