

## 1781-PXB241

1781-PXB241 provides a 24 point parallel interface between digital I/O and PC compatible computers. Each of the 24 digital signals is buffered to enhance the drive capability. Inputs and outputs can be mixed in any position and any combination. Reading and writing to the I/O is simply a call to the bus I/O memory location. I/O is generally located within 10 feet.

### Features

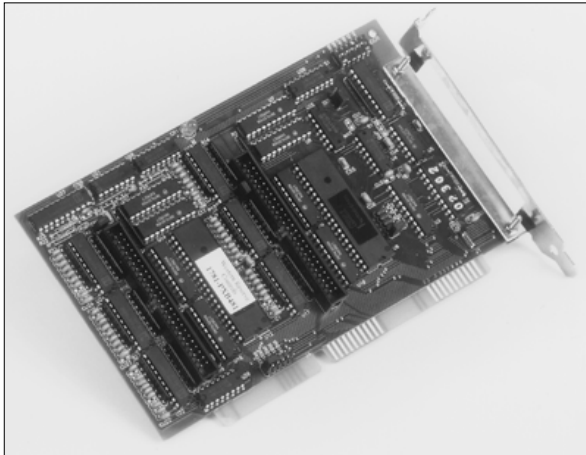
- 24 points of digital I/O in any mix of inputs and outputs
- Used with all WRC Discrete I/O mounting boards provided with edge or header connections, except those supporting more than 24 points of I/O.
- ISA bus compatible
- Equivalent to industry standard AC5, except DIP switches are used instead of jumpers
- Up to four PXB241s can be installed in a single PC
- 50-pin male header connector used for connection to one I/O mounting board
- 1/2 XT slot depth
- Specify 1781-CxEH or 1781-CxHH as appropriate where x=cable length for cabling to 1781 Series I/O mounting boards.

### Specifications

- Power requirements: +5V: 400 mA (typical)
- I/O: TTL compatible
- Input load current:  $\pm 10$  mA
- Output high drive current:  $200\mu\text{A}$  ( $V_{\text{out}} = 2.5$  V dc)
- One 50-pin header connector onboard
- Size:
- Address range: 220 Hex to 3E0 Hex selectable by Dip switch
- Sample programs provided in 'C' and Basic
- Utility DLL driver provided for Windows-based applications
- Fused 5V connection to I/O mounting board.
- Operating Temperature: 0 to 60 degree C
- Storage Temp.: -50 to +120 degree C
- Humidity: 0 to 90% RH, non-condensing
- CE compliant

## 1781-PXB481

1781-PXB481 provides a 48-point parallel interface between digital I/O and PC compatible computers. A latched change of state interrupt is available to interrupt the PC when any of the I/O points has changed state, at which time a simple call to the bus I/O memory location can be executed. This can save considerable scanning and processing time for time critical operations. Generally the I/O should be within 10 feet.



### Features

- 48 points of digital I/O configured as inputs or outputs in groups of 8
- Used with all WRC Discrete I/O mounting boards provided with edge or header connections, except those supporting more than 24 points of I/O.
- Operates in PC/XT/AT/386/486 or compatible computers
- ISA bus compatible
- Latched interrupt on input change-of-state
- Two 50-pin male header connectors used for connection to two I/O mounting boards
- Up to four PXB481's can be installed
- 48 Bits of buffered digital I/O
- Interrupt generation on input change-of-state
- Change-of-state interrupt software enabled in Six 8-input ports
- All 48 I/O lines buffered on the board
- I/O buffers can be enabled/disabled under Program Control
- Four and eight-bit ports independently selectable for I/O
- 10K $\Omega$  pull-ups on I/O lines
- +5V supply available to the user
- Supports IRQ2 through IRQ7, IRQ10 through IRQ12, IRQ14 and IRQ15
- Specify 1781-CxEH or 1781-CxHH as appropriate where x=cable length for cabling to 1781 Series I/O mounting boards.

### Specifications

- Logic High: 2.0 to 5.0 VDC
- Logic Low: -0.5 to +0.8 VDC
- Input Load (HI): 20 uA
- Input Load (Lo): -200 uA
- Logic High: 2.5 VDC min., source 15 mA
- Logic Low: 0.5 VDC max., sink 24 mA (64 mA optional)
- Power Output: +5 VDC from computer bus (ext. 1A fast-blow fuse recommended)
- Power Required: +5 VDC at 200 mA typical
- Size: 7.15" Long
- Operating Temperature: 0 to 60° C
- Storage Temp.: -50 to +120° C
- Humidity: 0 to 90% RH, non-condensing

## 1781-PXB721

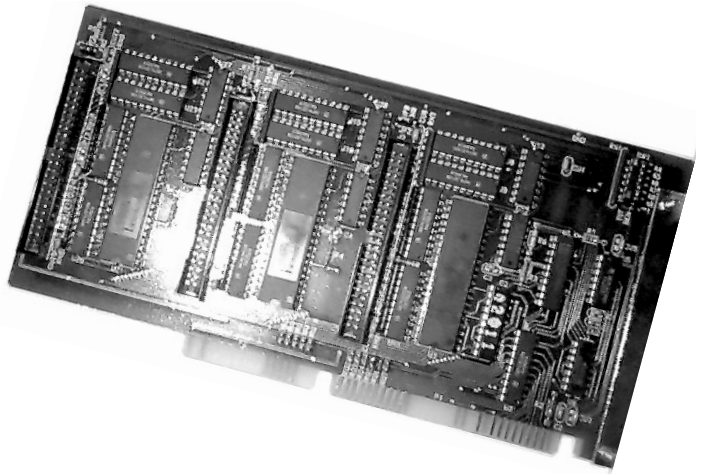
1781-PXB721 provides a 72-point parallel interface between digital I/O and PC compatible computers. Each of the inputs and outputs is buffered to enhance drive capability. Reading and writing to the digital I/O is simply a call to the bus I/O memory location. I/O generally should be located within 10 feet.

### Features

- Three 8255 PPI chips, each providing 24 digital I/O signals
- Used with all WRC Discrete I/O mounting boards provided with edge or header connections, except those supporting more than 24 points of I/O.
- Nine interdependent 8-bit I/O ports
- Operates in AT Bus or ISA compatible computers
- TTL-level input and output signals
- Ports may be implemented as COM1, COM2, COM3, or COM4, etc.
- Mode 0 of the 8255PPI is supported
- Switch selectable address
- Three 50-pin male header connectors used for connection to 3 I/O mounting boards
- Sample programs provided in 'C and Pascal
- Utility DLL driver provided for Windows-based applications
- Specify 1781-CxEH or 1781-CxHH as appropriate where x=cable length for cabling to 1781 Series I/O mounting boards.

### Specifications

- Power requirements: +5V: 400 mA (typical)
- I/O: TTL compatible
- Input load current:  $\pm 10$  mA
- Output high drive current: 200uA ( $V_{out} = 2.5$  V dc)
- Output low sink current: 1.7 mA ( $V_{out} = 0.45$ V)
- Three 50-pin header connectors onboard
- Size: 7" long
- Power output +5 V dc from computer bus
- Address range 100 Hex to 3F0 Hex
- Wait state generator available via jumper



## 1781-PXB1201

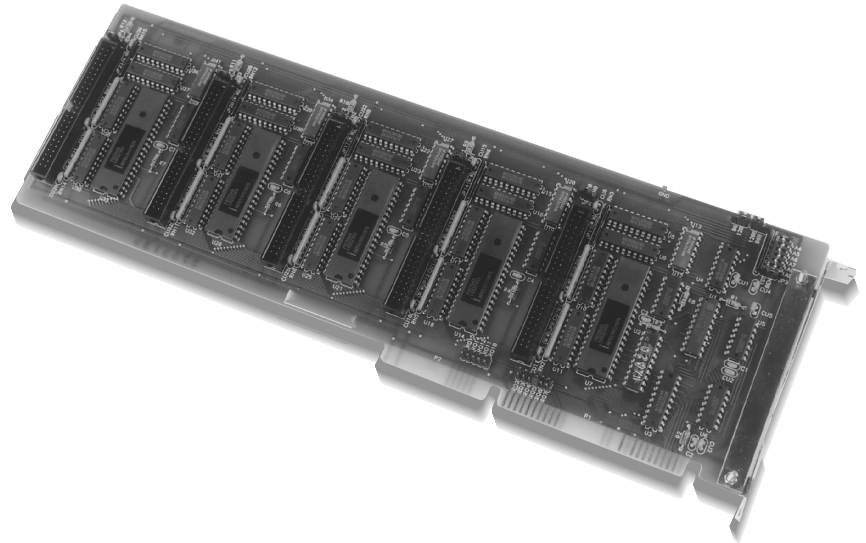
WRC's 1781-PXB1201 120-point Digital I/O Board provides 120 points of parallel communication between external devices and PC-compatible personal computers. The 120 signals are divided into fifteen 8-bit ports. Each port can be configured for either input or output.

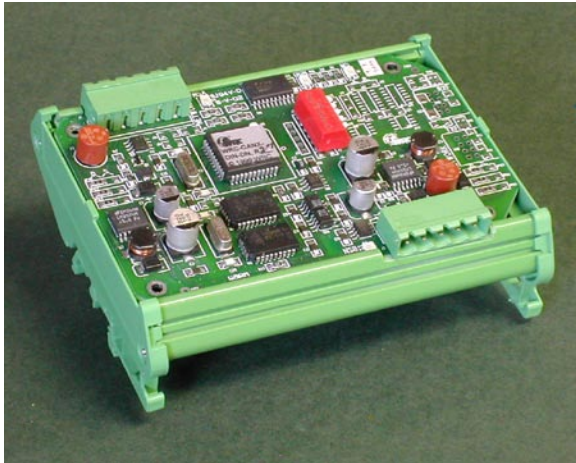
### Features

- Five 8255 PPI chips, each providing 24 digital I/O signals
- Used with all WRC Discrete I/O mounting boards provided with edge or header connections, except those supporting more than 24 points of I/O.
- Fifteen interdependent 8-bit I/O ports
- Operates in AT Bus or ISA compatible computers
- TTL-level input and output signals
- Ports may be implemented as COM1, COM2, COM3, or COM4, etc.
- Mode 0 of the 8255PPI is supported
- Switch selectable address
- Five 50-pin male header connectors used for connection to I/O mounting boards
- Sample programs provided in 'C' and Pascal
- Utility DLL driver provided for Windows-based applications
- Specify 1781-CxEH or 1781-CxHH as appropriate where x=cable length for cabling to 1781 Series I/O mounting boards.

### Specifications

- Power requirements: +5V: 400 mA (typical)
- I/O: TTL compatible
- Input load current:  $\pm 10$  mA
- Output high drive current: 200 $\mu$ A ( $V_{out} = 2.5$  V dc)
- Output low sink current: 1.7 mA ( $V_{out} = 0.45$  V)
- Four 50-pin header connectors on board
- Size: 7" long
- Power output +5 V dc from computer bus
- Address range 100 Hex to 3F0 Hex
- Wait state generator available via jumper boards.





WRC-CANX

## WRC-CANX DeviceNet and CAN-Bus Extenders

WRC-CANX CAN Bus Extenders extend CAN Bus networks such as DeviceNet, SDS, and OpenCAN Part B. CAN-based products limit cable length based upon network data rates, as well as limit the length of drops from T-Junctions. WRC's Bus Extenders allow a user to extend the cable length without having to sacrifice network speed by providing an isolated extender operating at the network speed to effectively multiply the allowed network cable length.

### Common Features include:

- Isolated network extender
- Manual or automatic speed selection - 125K, 250K, 500K, baud rates
- No address setting required for DeviceNet, SDS, or OpenCAN
- Multiple extenders can be used in series with manual speed selections
- Works on all CAN-Based bus networks
- Powered from 24 Vdc supplied by the CAN Network or by the user (on each side of the repeater)
- Diagnostic bi-color LEDs on each network - green / red
- Diagnostic bi-color LED for Module status - green / red
- 1 millisecond latency for each network extension
- Ambient Temperature : 0 to 70 degrees :C
- Humidity: 0 - 95% RH non-condensing

### Two Extender media to choose from:

- Basic DeviceNet Extender takes a CAN-based message in Port A, transfers it over an isolation barrier and regenerates the message out Port B (see figure 1).

Applications which require extensions to overcome DeviceNet limitations should consider this approach. Models available include:

- WRC-CANX-DIN-DN
- WRC-CANX-NEMA-DN
- WRC-CANX-DIN-SDS
- WRC-CANX-NEMA-SDS
- WRC-CANX-DIN-CAN
- WRC-CANX-NEMA-CAN

- WRC's Fiber-optic version takes a CAN-based message in Port A, transfers the message over a fiber optic link (B) and regenerates the message out Port C (see figure 2) .

WRC-CANR-DF-DN is a fiber-optic repeater with ST connectors:

figure 1:

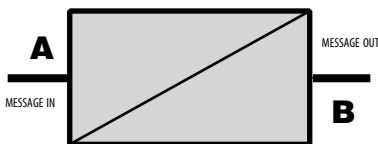
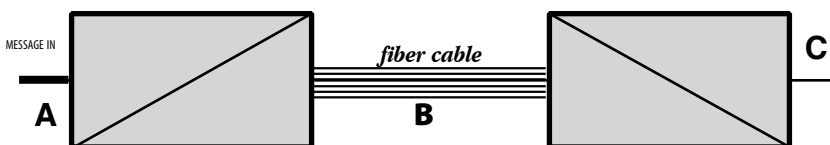
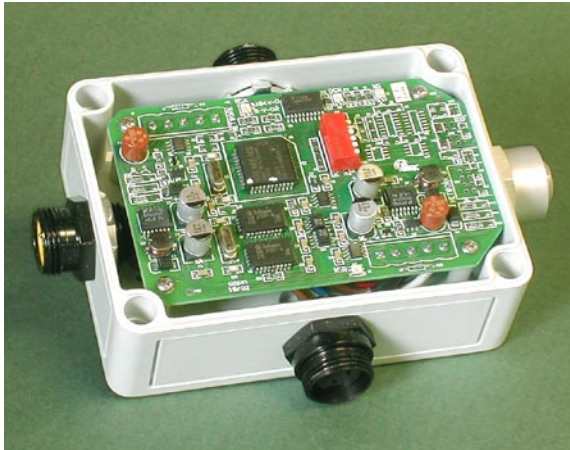


figure 2: (with copper cable connecting to ports A and C)





WRC-CANR

- WRC-CANR-DF-DN is compatible with 62.5/125 micrometer multimode cable, maximum distance is 2200 meters.

Pairs of repeaters are required. Models available include:

- WRC-CANR-DF-DN

### Two mechanical packages to choose from:

#### DIN-rail

WRC-CANX-DIN is DIN-rail mountable:

- Dimensions: 3.43" wide x 4.35" long x .213" high (87 mm wide x 110 mm long x 54 mm + high)
- PC Board 2.86" wide x 4.25" long with removable termination strip facing out on the long side
- PVC DIN Rail mount material
- DeviceNet compatible 5 - conductor, removable termination strip for each network connection
- Uses EN50022 Din Rails (available as WRC50022)

#### NEMA-style

WRC-CANR-DF-DN and WRC-CANX-NEM are sealed NEMA4X/IP66 enclosures:

- "Mini" style, quick disconnects for the network: 1 male, 1 female
- 3-conductor female, "mini" style, quick disconnects are provided for power connectors
- Dimensions: 3.70" wide x 5.12" long x 2.24" high (94 mm wide x 130 mm long x 81 mm high)
- Transparent polycarbonate cover allows viewing diagnostic LEDs on each network
- UL 94-V1, VDE 0471-Part 2, Flammability Ratings
- Polycarbonate, glass filled body
- Groove & Lip seal design
- Polyurethane gasket sealing that is oil, acid, and temperature resistant
- 4 mounting screws - external to gasket seal