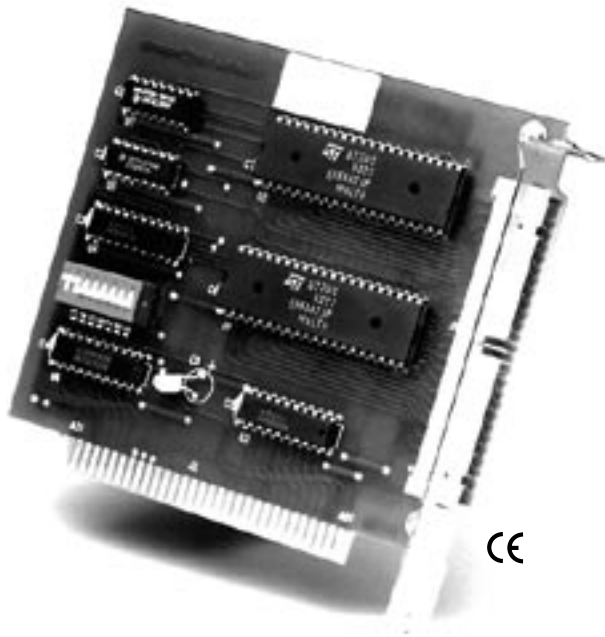


## 1781-PXB241 Digital I/O and PC Interface

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.

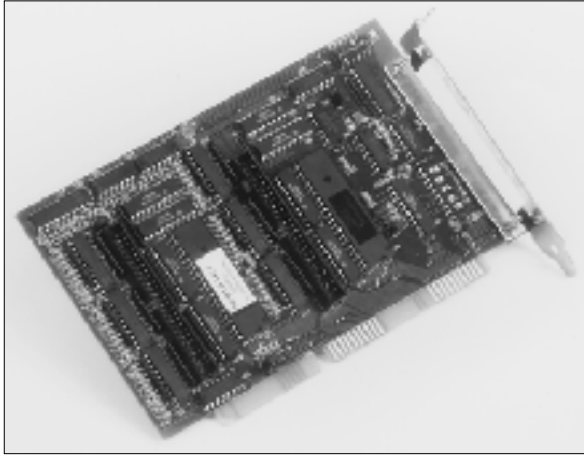


### Features

- 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 Digital I/O and PC Interface

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 Digital I/O and PC Interface

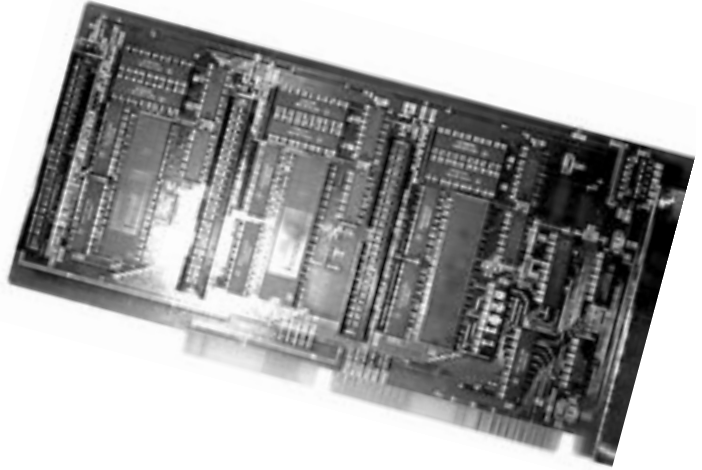
1781-PXB721 provides a 72-point parallel interface between digital I/O and PC compatible computers. Each of the inputs and outputs is buffered to enhance drive capability. Reading and writing to the digital I/O is simply a call to the bus I/O memory location. I/O generally should be located within 10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

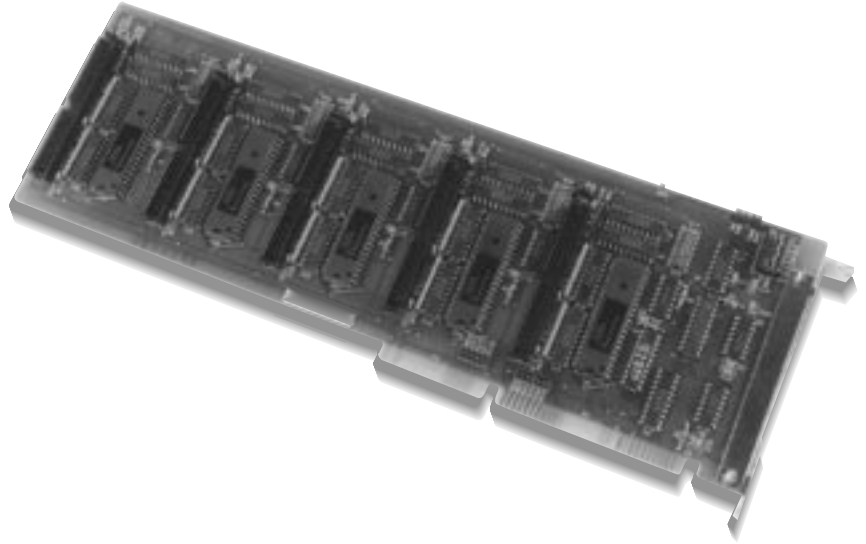
### Specifications

- 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 Digital I/O and PC Interface

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

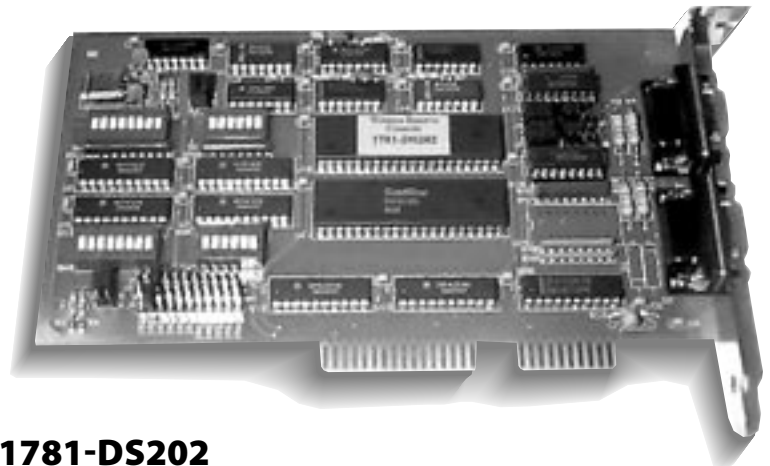
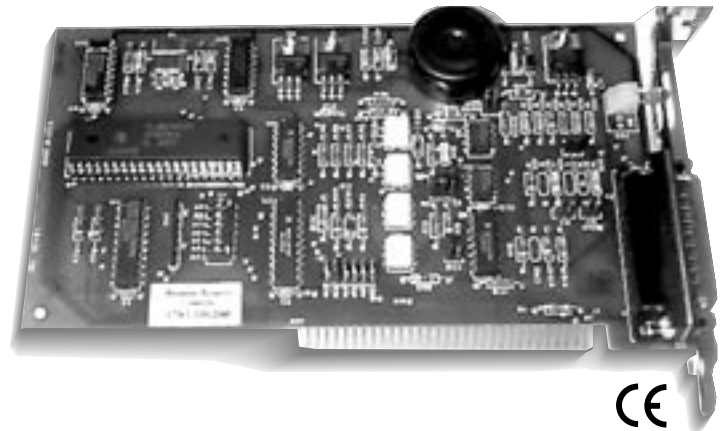
- Power requirements: +5V; 400 mA (typical)
- I/O: TTL compatible
- Input load current:  $\pm 10$  mA
- Output high drive current: 200 $\mu$ A ( $V_{out} = 2.5$  V dc)
- Output low sink current: 1.7 mA ( $V_{out} = 0.45$  V)
- Four 50-pin header connectors on board
- Size: 7" long
- Power output +5 V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

### 1781-DS200 RS422 Boards

The 1781-DS200 is an asynchronous RS422 communications boards for compatible personal computers using the ISA bus. 1781-DS200 is directly compatible with SmartMux adapters. The 1781-DS200 provides an optically-isolated, single channel of communications. An on-board dc-dc converter is used to supply power for the isolated communications. Other applications include Allen-Bradley 1781-DH485 communications.

#### Features

- Baud rate from 50 to 56,000 baud
- Continuously mappable address within 000 to 3FF(hex) range of bus I/O channels – switch selectable
- 400 mA dc power required from the bus
- DB-25 male connector
- Set-up as COM1, COM2, COM3 or COM4 when specified within the available address space
- LEDs used to monitor transmit and receive activity
- Auto RTS for Windows 95 compatibility
- Single-channel
- Isolated communication channel
- CE compliant



### 1781-DS201

The 1781-DS201 is an asynchronous RS422 communications boards for PC-compatible personal computers using the ISA bus. 1781-DS201 is directly compatible with SmartMux adapters. The 1781-DS201 provides a single channel of communications. Other applications include Allen-Bradley DH485 communications.

#### Features

- Baud rate from 50 to 56,000 baud
- Continuously mappable address within 000 to 3FF(hex) range of bus I/O channels – switch selectable
- 547 mA dc power required from the bus
- DB-9 female connector
- Set-up as COM1, COM2, COM3 or COM4 when specified within the available address space
- Single-channel

### 1781-DS202

The 1781-DS202 is an asynchronous RS422 communications boards for PC-compatible personal computers using the ISA bus. 1781-DS202 is directly compatible with SmartMux adapters. The 1781-DS202 provides two channels of communications. Other applications include Allen-Bradley DH485 communications.

#### Features

- Baud rate from 50 to 56,000 baud
- Continuously mappable address within 000 to 3FF(hex) range of bus I/O channels – switch selectable
- 547 mA dc power required from the bus
- Two DB-9 female connectors
- Set-up as COM1, COM2, COM3 or COM4 when specified within the available address space
- Two communication channels



**WRC-PCI-DIO24**  
**WRC-PCI-DIO72**  
**WRC-PCI-DIO96**  
**WRC-PCI-DIO120**



### PCI Digital Data Acquisition Boards

These PCI boards are compatible with WRC's line of opto-isolated I/O modules and come complete with Windows and Linux drivers.

#### FEATURES

- 24/72/96 or 120 bits of digital I/O
- Four and eight bit ports independently selectable for I/O
- All 24 I/O lines buffered by transceivers on the card
- I/O buffers can be enabled/disabled under program control
- Pull-ups on I/O lines
- Resettable fused +5 VDC output available
- Automatically detected under Windows 95/98/NT
- No base address or IRQ switches to set

These cards are parallel, digital input/output cards designed for use in PCI-Bus computers. Connection to the I/O modules is via a 50-conductor header connector.

The 24-point card is 4.80 inches long (122 mm) and may be installed in any 5V PCIbus slot in IBM and compatible personal computers while the other cards are 12.2 inches long (310 mm).

These cards contain a type 8255-5 Programmable Peripheral Interface (PPI) chip. They can be programmed to accept inputs or to provide outputs on three 8-bit ports: designated

Ports A, B, and C. Port C can be further divided into two 4-bit nibbles.

Each I/O line is buffered to support industrial class I/O modules such as WRC' 1781 series or WRC4 series.

The buffers are configured under program control for input or output use according to direction control signals from the control register inside the PPI. Pull-ups (to +5 VDC) on the card assure that there are no erroneous outputs at power-up until the card is initialized by system software. Further, jumpers on the card provide a choice to either permanently enable the buffers or to tristate them under program control.

Fused +5 VDC power is available at the I/O connector on the WRC-PCI-DIO24 version only. A resettable on-board fuse is rated at 0.5A and can be reset by cycling computer power.



Input/Output wiring connections are via a 50-pin connector on the card mounting bracket. Insulation displacement ribbon cables can be used for I/O connections to termination panels such as WRC's 1782-FBK50. Logic High: 2.0 to 5.0 VDC.

### Digital Inputs

- Logic Low: -0.5 to +0.8 VDC.
- Input Load (Hi): 20 uA.
- Input Load (Lo): -200 uA. Digital Outputs

### Digital Outputs

- Logic High: 2.5 VDC min., source 15 mA.
- Logic Low: 0.5 VDC max., sink 24 mA. (64 mA optional)

### Environmental

- Operating Temperature Range: 0° to 50° C.
- Storage Temperature Range: -40° to +65.6° C.
- Humidity: Maximum 90% RH, without condensation.

### Auxiliary Power Output

- +5 VDC from the computer bus on WRC-PCI-DIO24. Resettable fuse at 0.5A.

### Power Required

- WRC-PCI-DIO24: +5 VDC at 170 ma., if no current is drawn from the auxiliary fused +5 VDC output.
- WRC-PCI-DIO72: +5 VDC at 350 mA typical
- WRC-PCI-DIO96: +5 VDC at 400 mA typical
- WRC-PCI-DIO120: +5 VDC at 450 mA typical

### Regulatory Compliance

CE Declaration of Conformity, and Test Reports are on file.  
Users must use appropriate shielded cables.



*WRC is a Rockwell Automation Encompass Partner for Gateway, Bus Extender and signal conditioning products.*