

# KPCI-3160

- 96 TTL-level compatible digital I/O lines
- Bi-directional I/O
- High-current driver capability, 15mA (source) and 64mA (sink)
- Compatible with SSIO-24 and PB-24SM accessories
- Compatible with industry standard solid-state relays
- 32-bit DriverLINX<sup>®</sup> drivers plus a suite of bundled software including VisualSCOPE<sup>™</sup> and LabVIEW<sup>®</sup> drivers
- Not supported in Microsoft Windows 7 64-bit

## Ordering Information

**KPCI-3160**  
96-Channel, PCI-Bus,  
Parallel Digital I/O Board,  
CE Compliant

# 96-Channel Parallel Digital I/O Board



## Functional Description

This parallel digital I/O board offer a wide range of functionality for applications as diverse as digital I/O and process control to prototyping and parallel communications. It provides 96 TTL-level digital I/O lines that can be used for digital control of processes and monitoring of the status of switches, contacts, or other control points. All digital I/O lines can be accessed simultaneously by the hardware and software. These lines also provide high current driver outputs for sinking (64mA) and sourcing (15mA). This allows them to drive relays directly without any interface circuitry.

The digital I/O lines of the KPCI-3160 are divided into four 24-bit groups, each of which is further divided into three separate 8-bit ports (PA, PB, and PC). These ports can be set independently under software control as inputs or outputs. In addition to operating as a standard 8-bit data port, the third port (PC) can be subdivided into two half ports of four bits each. The PA, PB, and PC ports can always be read/write accessed, regardless of their initial configuration, without affecting external signal levels. All ports default as inputs upon initial power-up or reset conditions. The KPCI-3160 has a high output current of 15mA (source) and 64mA (sink), enabling direct control of LEDs, solid-state I/O modules, and relays.

## ACCESSORIES AVAILABLE

CAB-1800/S	100-conductor shielded cable with a 100-pin D-type connector on each end. 18 in length. Longer and non-shielded cables are also available
CAB-SSR	3 ft ribbon cable with card-edge connector for PB-24 and PB-24SM
CACC-2000	Cable, 24 in, 50 conductor. Interfaces CONN-3160-D1 to STA-50, STP-50, or SSIO-24
CONN-3160-D1	Adapter accessory for the KPCI-3160
PB-24SM	24-channel baseboard for SM Series SSR modules
SSIO-24	24-channel solid-state I/O module board. Requires CACC-2000 cable
STA-50	Universal 50-pin screw terminal board. Requires CACC-2000 cable
STP-50	Screw Terminal panel with 50-pin male header. Requires CACC-2000 cable
STP-100U	100-pin universal screw terminal panel
STP-ENCL	General purpose enclosure for STP-37, STP-37/E, and STP-50

## APPLICATIONS

- Factory automation
- Monitoring the status of switches, push buttons, limit switches, etc.
- Laboratory automation
- Production test
- Energy management
- Security systems

Wide range of functionality

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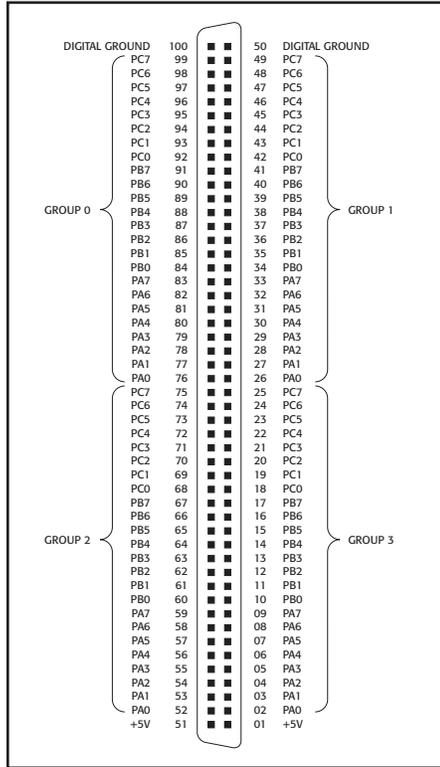
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# KPCI-3160

# 96-Channel Parallel Digital I/O Board

## Connector Pin Assignments for KPCI-3160

The digital input and output connections are made with a 100-pin connector.



## Specifications

Symbol	Parameter	Min.	Typ.	Max.	Unit
<b>Logic Inputs and Outputs</b>					
$V_{IH}$	Voltage, input high	2.0	–	–	V
$V_{IL}$	Voltage, input low	–	–	0.8	V
$I_{IH}$	Current, input high, $V_{IN} = 2.7V$	–	–	$\pm 1$	$\mu A$
$I_{IL}$	Current, input low, $V_{IN} = 0.5V$	–	–	$\pm 1$	$\mu A$
$I_{OZH}$	High impedance output current, $V_{OUT}$ high	–	–	$\pm 1$	$\mu A$
$I_{OZL}$	High impedance output current, $V_{OUT}$ low	–	–	$\pm 1$	$\mu A$
$V_{OH}$	Voltage, output high, $I_{OH} = -8mA$	2.4	3.3	–	V
$V_{OL}$	Voltage, output low, $I_{OL} = -15mA$	2.0	3.0	–	V
$V_{OL}$	Voltage, output low, $I_{OL} = 64mA$	–	0.3	0.55	V
$I_{OL}$	Current, output low	–	–	64.0	mA
$I_{OH}$	Current, output high	–	–	-15	mA
$I_{OS}$	Short circuit current	-60.0	-120.0	-225.0	mA
$I_{OFF}$	Input/output power off leakage	–	–	$\pm 1$	$\mu A$

### Environmental

Operating temperature range	0	+50	°C
Storage temperature range	-20	+70	°C
Humidity (non condensing)	0	90	%

### Dimensions

$5 \times 4.25 \times 0.75$ (half slot)	inches
$12.7 \times 10.8 \times 1.9$	cm

### Weight

4.4	oz
125	grams

NUMBER OF CHANNELS: 96.

SINK: 64mA.

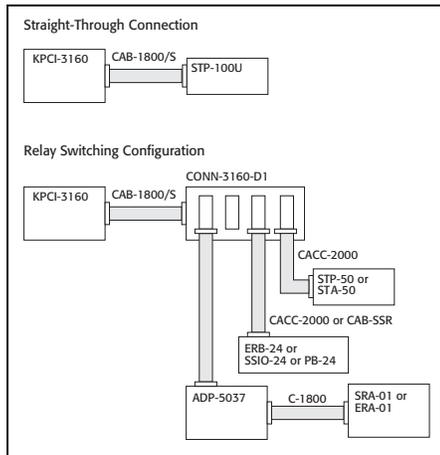
SOURCE: -15mA.

INTERRUPT CAPABILITY: Yes, configurable.

CONNECTOR TYPE: 100 pin.

CE COMPLIANT: Yes.

## Configuration Guide for KPCI-3160



Simultaneously access all digital I/O lines

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