Important Note
SGI® IO10 PCI Option for Altix™ 350

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This document explains the basic functions, limitations and operation of the SGI IO10 option card used with your Altix 350 server. The card is a full-size PCI expansion board that provides basic system I/O capabilities via the PCI bus. It connects to your system's internal serial ATA hard drive(s) and DVD-ROM drive and provides optional external serial ports. The IO10 is installed in the lower PCI slot of your system as shown in Figure 1.
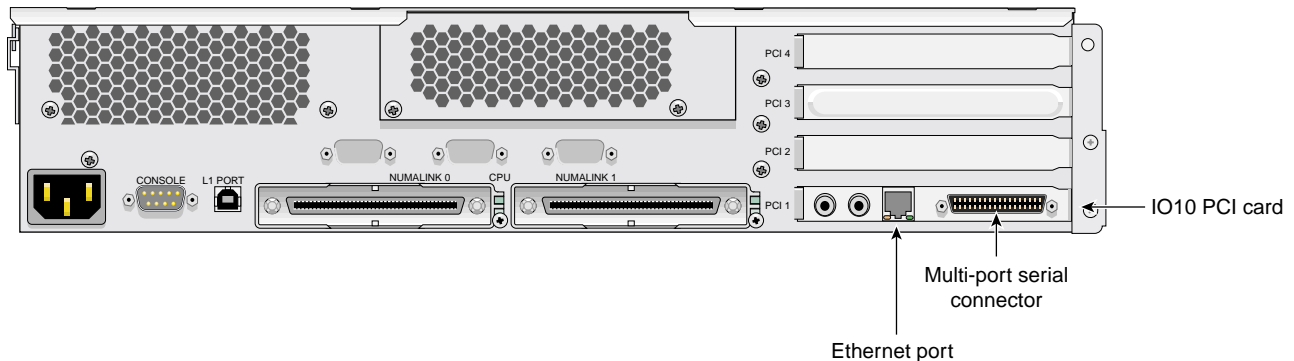
Figure 1   IO10 PCI Board Connectors

Note: The RT interrupt input and RT interrupt output functionality of the IO10 PCI card is not supported under SGI Linux + ProPack. These are the two unlabeled connectors on the left side of the IO10 shown in Figure 1.

Guidelines for IO10 Based Systems

Use the following information when working with an Altix 350 system using an IO10:

* Altix 350 base compute modules using the IO10 PCI card do **not** support SCSI internal hard drives.

* Removal and replacement of the IO10 should be performed by trained service personnel only.

* Only one IO10 card can be used in each system module and it must be installed in PCI slot 1.

* You must use the optional multi-port serial adapter cable to convert the 36-pin MDR connector on the IO10 to four 9-pin serial ports. See Figure 3 for an example.

Cables and Connectors

Figure 2 shows the connector pin locations for the multi-port serial adapter connector located on the IO10 card.
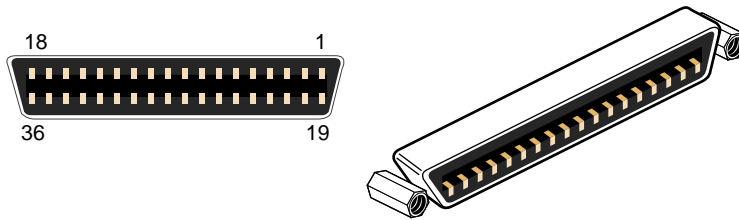

Figure 2   Pin Number Locations for 36-pin MDR Connector

Table 1 lists the pin assignments for the multi-port serial adapter connector.

Table 1 Multi-port Serial Adapter Pinouts

Pin	Assignment	Pin	Assignment
1	GND	19	S0 DSR
2	S0 DCD	20	S0 RTS
3	S0 RXD	21	S0 CTS
4	S0 TXD	22	S0 RI
5	S0 DTR	23	GND
6	S1 DSR	24	S1 DCD
7	S1 RTS	25	S1 RXD
8	S1 CTS	26	S1 TXD
9	S1 RI	27	S1 DTR
10	GND	28	S2 DSR
11	S2 DCD	29	S2 RTS
12	S2 RXD	30	S2 CTS
13	S2 TXD	31	S2 RI
14	S2 DTR	32	GND
15	S3 DSR	33	S3 DCD
16	S3 RTS	34	S3 RXD
17	S3 CTS	35	S3 TXD
18	S3 RI	36	S3 DTR

Figure 3 shows the optional multi-port serial adapter cable's connection to the IO10 PCI option card. Leave the adapter cable disconnected if you do not have any serial devices to attach.
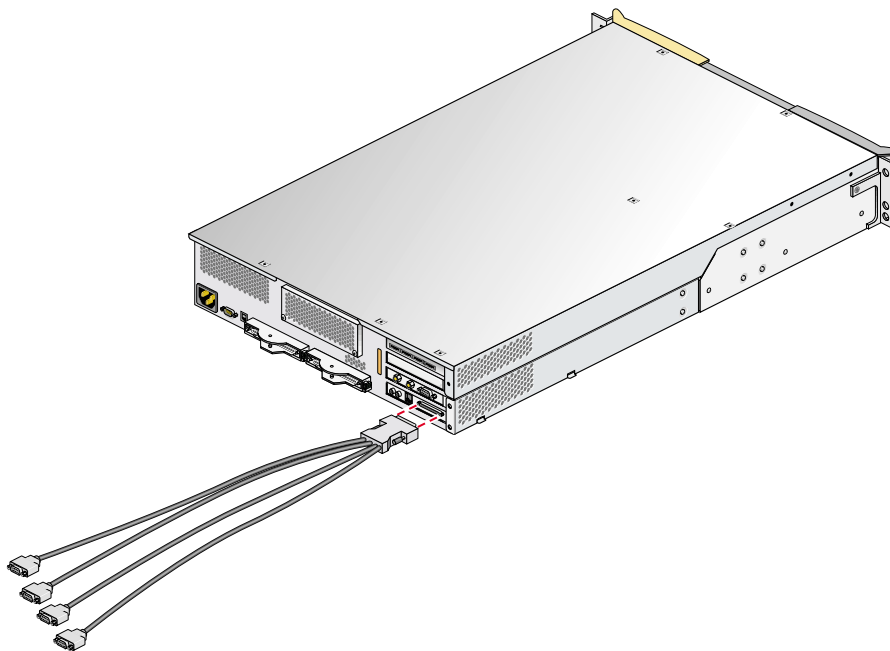
Figure 3   Optional Multi-port Serial Adapter Cable

Functional Features

The IO10 PCI card operates at 66 MHz with a maximum transfer rate of 256 MB per second.

Do not install a 33-MHz PCI card on the same bus as the IO10 PCI card (in the slot directly above the IO10).

The IO10 card can use either 32- or 64-bit transfers.

The Ethernet interface on the IO10 (RJ-45 connector jack) runs at 10/100/1000 Mbits per second. This connector is the same one depicted in Appendix A of the *SGI Altix 350 System User's Guide*, (P/N 007-4660-00*x*).

The optional 24-inch (61-cm) long multi-port serial adapter cable provides four RS-232/RS-422 compatible DB-9 connectors.

SGI Customer Support

SGI provides a comprehensive product support and maintenance program for its products. If you are in North America and would like support for your SGI products, contact the Technical Assistance Center at 1-800-800-4SGI, or contact your authorized service provider. If you are outside North America, contact the SGI subsidiary or authorized distributor in your country.