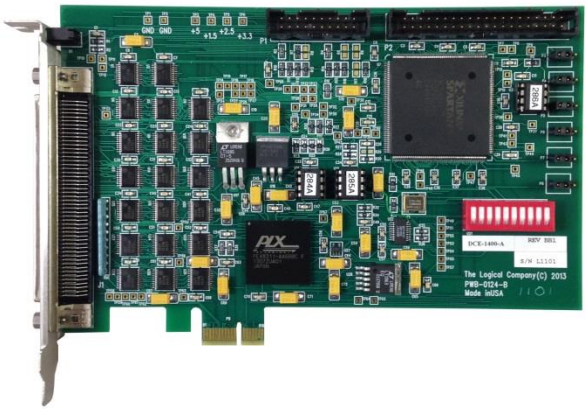
DRV11-J Interface for PCI Express

Model DCE-1400



The DCE-1400 is signal and connector compatible with Digital's DRV11-J. Users can unplug their external equipment from their older PDP-11, VAX, MicroVAX or Alpha system and plug directly into a PCI Express slot in a new Itanium system.

The DCE-1400 is a parallel interface that provides 64 input/ output data lines. The DCE-1400 is software and hardware compatible with Digital's DRV11-J Q-bus controller and can be used as a direct replacement.

The DCE-1400 includes an advanced interrupt structure with bit interruptability up to 16 lines, programmable vectors, and program selection of fixed or rotating interrupt priority within the DCE-1400.

The DCE-1400's bit interrupts for real time response make it especially useful for sensor I/O applications. It can also be used as a general purpose interface to custom devices, and two DCE-1400's can be connected back-to-back as a link between two systems. A software driver for OpenVMS 8.4 is available separately.

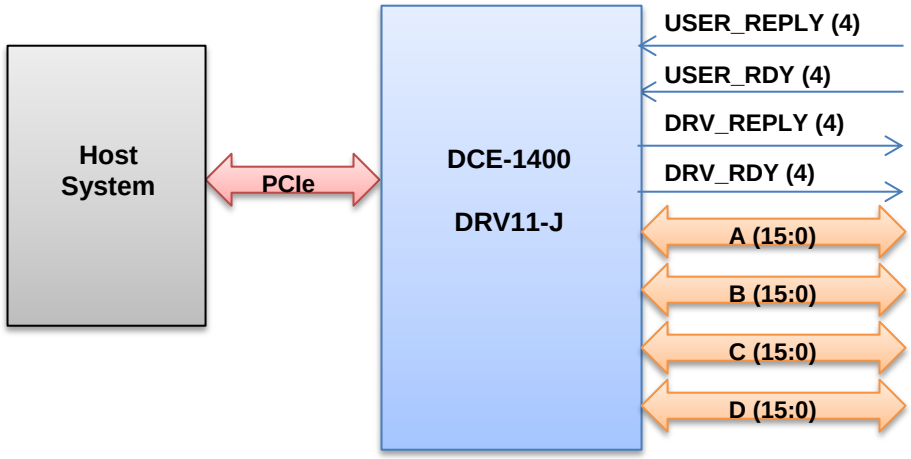
DRV11-J Compatible. The DCE-1400 provides the same operating features as Digital's DRV11-J:

- Four 3-state 16-bit parallel I/O ports
- Acceptance of up to 16 external interrupt requests
- Programmable vector addresses
- Program-controlled input/output operations
- Programmable operating modes.

Provides an easy migration path. The DCE-1400 is a plug and play solution for users migrating from older Digital systems.

Space saving. The DCE-1400 requires only a single PCI Express slot allowing use of multiple modules in a server.

Easy to maintain. A module exerciser supplied with the device driver allows the user to verify DCE-1400 operation.



Applications

General I/O Application: Use the DCE-1400 to connect a server to external user equipment such as data acquisition, A/D, telemetry or industrial control equipment supporting a DRV11-J compatible interface for 16-bit parallel data transfer or to provide interrupt services for up to 16 lines.

Parallel Computer Link: Use the DCE-1400 to provide a parallel data link to another system supporting a DRV11-J compatible interface.

Ordering Information

Hardware

DCE-1400-AA	Standard data controller package for the PCI Express bus. Includes controller, standard adapter panel, adapter cable, loopback test cable and owners manual.
DCE-1400-A	PCI Express controller only.

Software Driver

MED0179CD	SFT_JGDRIVER. DCE-1400 OpenVMS 8.4 driver and manual on CD.

Specifications

Physical Dimensions	
Controller PWB	PCIe full height, half length card 4.376 in by 6.60 in (11.515cm x 16.765cm)
Adapter Panel	8.75 in by 4.00 in by 1.00 in (22.2 cm x 10.2 cm x 2.5 cm)
Interface	
Controller Connector	100-pin high density
Adapter Panel	Provides user connection to two 50-pin DRV11-J style connectors.
Adapter Cable	8-foot cable terminated with100-pin high density connectors.

Specifications (cont'd)

Electrical	
Power Required:	
+3.3 volts DC	0.4 amp, max
+12 volts DC	1.0 amp, max
+3.3 volts aux	Not used
Bus Loading	2 ac loads, 1 dc load
I/O Signal Parameters	
Data Buffer 3-State Outputs	
V(OL) = 0.5V @ I(OL) = 8mA	
V(OL) = 0.4V @ I(OL) = 4mA	
V(OH) = 2.4V @ I(OH) = -2.6mA	
Data Buffer Inputs	
I(IL) = -0.2mA @ V(IL) = 0.4V	
V(IH) = 20µA @ V(IH) = 2.7V	
Protocol Signal 3-State Outputs	
V(OL) -0.55V @ I(OL) = 64mA	
V(OH) -2.4V @ I(OH) = -15mA	
Protocol Signal Inputs	
Termination = 120Ω	
I(IL) = -27mA @ V(IL) = 0.5V	
I(IH) = 80µA @ V(IH) = 2.7V	
PCI Express Bus	
Lane Size	x1
Compliance	3.0
Environmental	
Operating Conditions:	
Temperature	5° to 50° C (41° to 122° F)
Relative Humidity	20% to 80% noncondensing
Storage Conditions:	
Temperature	-40° to 66° C (-40° to 150° F)
Relative Humidity	10% to 95% noncondensing