**DATA PATTERNS**

DP-cPCI-4035 | 32 Channel Form 'C' High Power Relay Module

KEY FEATURES AND BENEFITS

• 32 channel Form 'C' relays in a single 6U module

• PCI version 2.2, 32-bit, 33MHz interface

• Max switch voltage of 500V DC/ peak AC

• Max carry current of 5A DC/ peak AC

• Software verification of latched data

• Low contact resistance

• 1 Form C SPDT switch

• Mercury-wetted contact relays for zero bounce operation

• Geographical addressing

• Windows 2000 drivers provided

• RT Linux drivers provided

• Profile mode of switching available for 10msec min update time with 1K profile memory depth

• Group selection and internal trigger

APPLICATIONS

• Power routing

• Relay outputs for soft PLCs

• Automatic test equipment

• High current measurement routing

• Hardware simulation
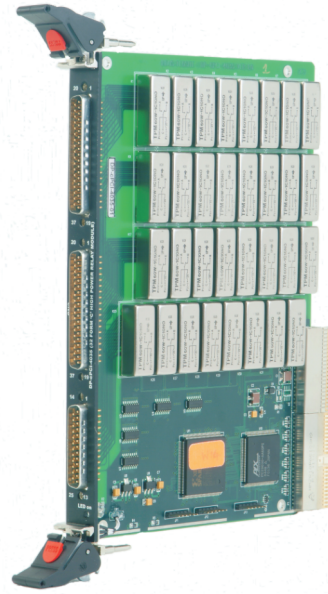
OVERVIEW

DP-cPCI-4035 is a cPCI-based 32-channel high power relay. It is designed as general-purpose module. Applications of this module include power routing, relay outputs for soft PLCs, automatic test equipment, hardware simulation and high current measurement routing.

MAJOR BLOCKS

This module consists of 32 numbers of 1 Form C high power relays(Mercury-wetted). Major blocks of cPCI based relay module include:
- CPCI interface
- Hot swap
- Relays
- Relay drive interface logic

cPCI INTERFACE

The Compact PCI is an adaptation of the Peripheral Component Interface (PCI) specification 2.1for industrial or embedded application requiring a more robust mechanical form factor than desktop PCI. The module interfaces with the backplane through J1 (32-bit PCI signals). The board is hot-swap compatible.

The maximum carry current of each relay is 5A and maximum voltage that can be switched with this module is 500V DC. The relay offers excellent contact resistance stability and bounce-free operation.

FIELD TERMINATION

Inputs and outputs of relays are terminated on 2 numbers of 37-pin and one number of 250-pin D-sub connector on the front panel.

SOFTWARE SUPPORT

The module is supplied complete with device drivers in Windows 2000 and RT Linux.

Please contact factory for support in any other operating system such as VxWorks, QNX, InTime, Lynx and Greenhills Integrity, etc.

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SPECIFICATIONS

SWITCHING CHARACTERISTICS

No. of channels	32
Type of configuration	1 Form C, Mercury-wetted
Switching voltage	500V DC/Peak AC max.
Switching current	2A DC/Peak AC max.
Carry current	5A DC/Peak AC max.
Switching power	100W / 100VA max

DC CHARACTERISTICS

Contact resistance	<300m ohms (@ connector level)
Insulation resistance	1GOhm min
Withstand voltage	1000V DC max.
Operate/release time	2.5mS max.
Profile mode	10mS min update time

MECHANICAL

Board	233.5mm (H) x 160mm (DP
Module	6U (H)

CONNECTOR

Backplane interface	cPCI interface
Field interface	37 and 25-pin D-sub connector

ENVIRONMENT
Rugged and commercial

POWER SUPPLY
+5V @ 1.5A 10W
+3.3V @ 500mA

ORDERING INFORMATION

DP   cPCI 4035 3 0 0

Factory options specified based on applications

3 - Commercial version
6 - Rugged version
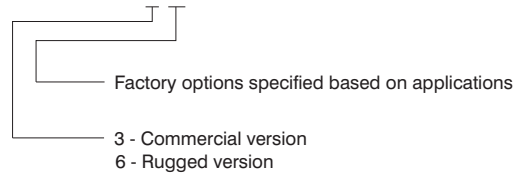
BLOCK DIAGRAM OF 6U 32 Form C High Power Relay Module