YTEC CORP.

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PC-B/PCI SERIES MODULES

The PC-B Series Modules plug into PC/AT/XT Compatible ISA Bus slots. The PCI Modules plug into PCI slots. Both are available as either Switch Modules or Driver Modules. The modules can be controlled either by direct hardware port access or by installable Device Drivers.   PCI Moduldes come with Plug and Play device drivers. Software support is available for the most common program languages.

The modules also have a special Status feedback feature which enables the computer to confirm that the correct selections have been made by checking the relay drive. This can be used to self test the modules or as a diagnostic tool.

INTERFACE MODULE
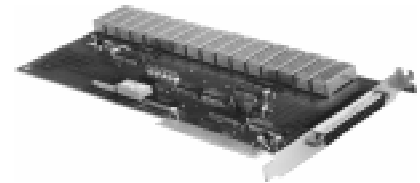
SWITCH MODULE

PC-B SERIES SWITCH MODULES

Each Module has 16 high reliability reed relays with operate times less than 2 msec and guaranteed for 100 million operations. Relay options offered are Standard Dry Reed, Mercury Reeds for high current and Low Offset Reeds for microvolt signal levels.

The Signal Input connector in each module is a 37 pin male D type connector and mates are available for Ribbon Cable wiring or for individual Crimp Pin wiring. External screw terminal blocks are optionally available.

All modules have Status feedback and LEDs associated with each relay for visual indication of the relays energized.

Power Requirement $\pm$5 volt < 0.2 Amp $\pm$12 volt < 20 mas per relay energized.

PC-B/MUX 16 SWITCH MODULE

This module has 16 two pole relays as shown in Fig. 1 with selection of any one of 16 inputs to one output and Break before Make Switching. Only one relay may be selected at any time.

Bandpass -- With 50 ohm terminations, the bandpass is flat to within 1 dB from DC to 10 MHz and is within 3 dB up to 70 MHz.

Isolation between Inputs to Outputs across unused channels with 50 ohm terminations is as follows:

10 kHz - 90 dB   100 kHz - 70 dB   1 MHz - 50 dB

Relays can be supplied with Type S, Type M, Type MG, or Type LT contacts. Type M versions must be operated in a vertical position.
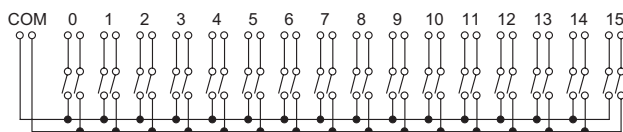

Fig. 1

PC-B/K16 SWITCH MODULE

This module has 16 single pole discrete Form A relays as shown in Fig. 2. Any number of the relays may be latched simultaneously. Relays may be wired externally in any required configuration.

Bandpass -- With 50 terminations, the bandpass is from DC to 30 MHz.

Isolation -- With 50 terminations, the isolation between channels is as follows:

10 kHz - 90 dB   100 kHz - 70 dB   1 MHz - 50 dB

Relays can be supplied with Type S, Type M Relays or Type MG contacts. Type M versions must be operated in a vertical position.
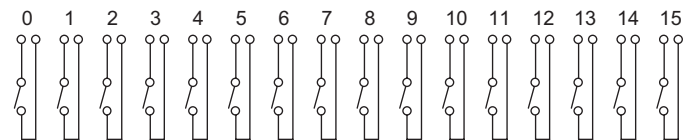

Fig. 2

PC-B/2(8x1) SWITCH MODULE

The PC-B/2 (8x1) Switch Module is a general purpose module which can be used in either Matrix or Multiplexer applications. It has 16 two pole relays configured as two separate 8x1 two wire Multiplexers as shown in Fig. 3 which can be jumpered as one 16x1 two wire Multiplexer.
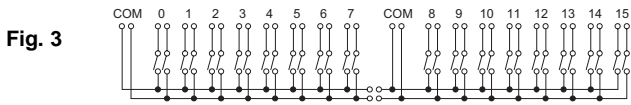
Fig. 3

PC-B/30x1 SWITCH MODULE

By using one Form C relay to submultiplex the 16x1 mux, the module can be used as a 30x1 single pole Mux as shown in **Fig. 4.**
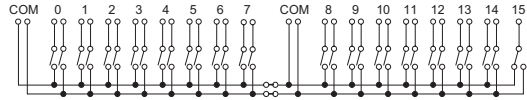
Fig. 4

Bandpass
With 50 ohm terminations, the bandpass is from DC to 30 MHz.
Isolation
With 50 ohm terminations, the isolation between channels is:
10 kHz - 90 dB   100 kHz - 70 dB   1 MHz - 50 dB
Relays can be supplied with Type S, Type M or Type LT contacts. Type M versions must be operated in a vertical position.

RELAY SPECIFICATIONS

Type S - Standard relays for Instrumentation Level Signals.
Type M - Mercury relays for high current switching.
Type MG - Mercury Amalgam Non-Position Sensitive Relays.
Type LT - Low Thermal relays with less than 1 microvolt offset.
Switches are guaranteed for 100,000 operations if used within the following specifications:

	Type S & LT	Type M	Type MG
Contact Rating	10 VA	50 VA	30 VA
Switching Voltage	200 V	500 V	350 V
Switching Current	0.5 A	1.0 A	0.75 A
Breakdown Voltage	300 V	1000 V	1000 V
Carry Current	1.0 A	2.0 A	2.0 A
Operate Time	<1Ms	<2Ms	<2Ms

PCI BUS INTERNAL PC MODULES
PCI/32DRV DRIVER MODULE

32 channel plug and play relay driver module allows control of up to 32 relays, solenoids or other loads. Open collector darlington current sinks or sources deliver up to .35 amps of current per channel with a max of .5 amps per group of 8 drives. Uses +12 volts from computer or up to 50 volt external source.

PCI/2(8X1)-2S SWITCH MODULE

This Module is functionally equivalent to the PC-B/2(8x1) Module but plugs into the PCI Bus and uses Armature (Type A) relays.

Plug and Play switch module has two separate 8x1 two pole multiplexers which may be jumpered to form one 16x1 two pole mux as shown in **Fig. 5**.
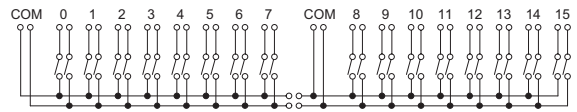
Fig. 5

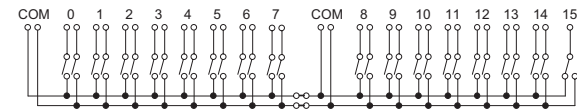A submultiplexer relay may be used to provide a 30x1 single wire mux as shown in **Fig. 6**.

Fig. 6

RELAY SPECIFICATIONS

	Type A
Contact Rating VA	30
Switching Voltage DC	110V
Switching Current DC	1.0A
Carrying Current DC	1.0A
Breakdown Voltage DC	750V
Operate Time MSec	3

PC-B DRIVER MODULES

There are two basic types of Modules: the PC-B/24 Relay Driver Module, and the IF-PC TTL Compatible Input/Output Module. Both Modules are half slot size and have 37 pin female D type connectors. Mates are available for ribbon cable or crimp pin type wiring.

PC-B/24 DRIVER MODULE

This Module has 24 separate relay drivers which can be used to select and control CYTEC Switch Modules or any other types of relays.
The 24 Relay drivers are in three groups of eight high voltage, high current Darlingtons with open collector outputs and integral suppression diodes. **Any number of these drivers can be selected at any time and the Status of the drivers selected can be verified by the computer**.
Each driver can operate on different voltages up to a maximum of 50 volts and current up to 500 mas, with a maximum of 1500 mas within any group of 8 drivers.

ENVIRONMENT
Operating Temperature: 0º to 55º C.
Storage Temperature: - 20º to 70º C.
Humidity: Less than 95% RH, no condensation to 30º C.

IF-PC MODULE

This is a half slot size module and has TTL compatible outputs and inputs suitable for selecting up to 8,192 relays and checking Status of the relays in any of the CYTEC Series of Switch Matrices.

The relays can be Latched or Unlatched in the Matrix or Multiplex Mode, or an entire matrix can be cleared. Status of all relays can be verified and displayed on the Computer Monitor. Power requirements are dependent on the system size and can be supplied with the Matrix chassis.

FOR TECHNICAL ASSISTANCE, CONTACT 1-800-346-3117 or WWW.CYTEC-ATE.COM