



### Features

- Up to eight AC or DC solid state relay modules
- Photo-coupler isolated operation
- Eight external relay drivers
- Built-in screw terminals for easy wiring
- LED status indicators

### Introduction

The PCLD-786 is an SSR I/O module carrier board that can accept up to eight photo-coupler isolated solid state relay modules and drive up to eight external relays. It is designed as an accessory board for any PC-LabCard equipped with 16 digital outputs on a standard 20-pin connector.

The PCLD-786 accepts up to eight Opto-22 compatible AC or DC SSR (solid state relay) modules in any combination. An AC module always turns its output on at the zero cross voltage point, thus avoiding transient problems caused by heavy inductive loads. DC modules provide fast and bounce-free DC power switching. Compared to mechanical relays, SSRs are more reliable, respond quicker and are more resistant to noise.

The PCLD-786 has eight digital output drivers for external relays. Driving voltages are jumper selectable for +5 V, +12 V or external DC power (if overloading a PC power supply is a concern). Each module or driver is equipped with an adjacent red LED for status monitoring.

### Applications

- AC power On/Off control
- DC power On/Off control
- Valve/solenoid control
- Control of external high power relays

### Specifications

#### AC Solid State Relays

- **Type:** PCLM-OAC5A
- **Output rating:** 24 ~ 280 V<sub>AC</sub> @ 3.0 A
- **Blocking voltage:** ±600 V min.
- **OFF leakage current:** 8 mA max.
- **ON-state voltage:** 1.6 V max.
- **Turn on:** Zero volts

- **Turn on/turn off time:** < ½ cycle
- **1 cycle surge:** 40 A

#### DC Solid State Relays

- **Type:** PCLM-ODC5
- **Output rating:** 5 ~ 60 V<sub>DC</sub> @ 3.0 A
- **OFF leakage current:** 1 mA max.
- **ON-state voltage:** 1.4 V max.
- **Turn on/turn off time:** 750 msec. max.
- **1 second surge:** 5 A

#### External Relay Drivers

- **Channels:** 8 channels
- **Driver type:** ULN2003, open collector type
- **Max. driving current:** 125 mA each channel
- **Coil driving voltage:** +5 V, +12 V from PC or external source
- **Size:** 205 mm x 114 mm (8.1" x 4.5")

### Ordering Information

- ☐ **PCLD-786:** 8-channel SSR I/O Module Carrier Board, user's manual and one 1 meter 20-pin flat cable assembly (P/N PCL-10120-1)

**Note:** The PCLD-786 does not include SSRs. They must be ordered by selecting single piece SSR modules according to your requirements.

- ☐ **PCLM-OAC5A:** Single piece AC SSR module (280 V, 3 A)
- ☐ **PCLM-ODC5:** Single piece DC SSR module (60 V, 3 A)