PCL-720

Digital I/O and Counter Card

Introduction

The PCL-720 digital I/O and counter card is a PC-compatible add-on card with 32 digital input channels, 32 digital output channels and three programmable counter/timer channels.

Its digital I/O channels are TTL-compatible and use 74LS244 driver/buffer circuits to provide high output driving capacity. These buffered circuits also require lower input loading current than regular TTL circuits.

The PCL-720's 8254 programmable counter/timer provides three flexible 16-bit counter/timer channels. You can generate waves and pulses by programming the 8254. Jumper settings determine the clock crystal frequency. The PCL-720 also includes a breadboard area perfect for customized circuits.

Applications

Digital Input

- Contact-closure monitoring
- Switch-panel status sensor
- BCD interface receiver
- Digital signal interface

Digital Output

- Industrial On/Off controller
- Digital signal interface
- BCD interface driver

Counter/Timer

- Period and pulse-width measurement
- Event and frequency counting
- Waveform and pulse generation

Features

- 32 TTL-level digital input channels
- 32 TTL-level digital output channels
- High output driving capacity
- Low input loading
- Three programmable counter/timer channels
- User configurable clock source
- Breadboard area for custom circuits

Specifications

Digital Input

- **Input lines**: 32
- **Logic level 0**: 0.8 V max.
- **Logic level 1**: 2.0 V min.

Digital Output

- **Output lines**: 32
- **Logic level 0**: 0.5 V max. @ 24 mA (sink)
- **Logic level 1**: 2.0 V min. @ 15 mA (source)

Programmable Counter/Timer

- **Frequency range**: 0 ~ 2.6 MHz
- **Counters**: 3 independent 16-bit counters
- **Modes**: Six programmable modes
- **Usable pins**: CLOCK and GATE for each channel

Clock Source

- **Clock frequency**:
  2 MHz, 1 MHz, 500 kHz or 250 kHz; jumper selectable
- **Frequency divider**: Divided by 1, 10, 100 or user adjustable

General

- **Power consumption**: +5 V @ 500 mA typical
- **Dimensions**: 205 x 95 mm (8" x 3¾ ")
- **I/O port address**:
  Eight consecutive bytes from hex 200 ~ 3F8
- **Breadboard area**:
  651 (31 x 21) plated-through “donuts”, each with a .036" hole on 0.10" centers

Ordering Information

- ❑ **PCL-720**: Digital I/O and counter card, user’s manual
- ❑ **PCLD-780**: Screw terminal board
- ❑ **PCLD-782B**: 24/16 Channel opto-isolated D/I board
- ❑ **PCLD-785B**: 24/16 Channel relay output board
- ❑ **PCLD-786**: SSR and relay driver board
- ❑ **PCLS-OCX**: ActiveX Control for data acquisition and control.
- ❑ **ADAM-3920**: 20-pin flat cable wiring terminal for DIN-rail mounting
- ❑ **PCLD-885**: 16-Channel power relay (form A) output board