

## Pmod8LD™ Reference Manual

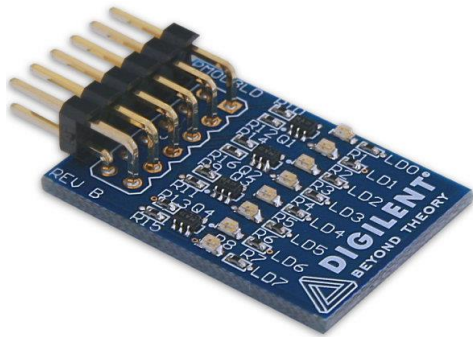
Revised April 15, 2016

This manual applies to the Pmod8LD rev. B

---

### Overview

The Digilent Pmod8LD has eight high-bright LEDs that are driven by logic-level transistors so that each LED can be individually illuminated from a logic high signal.



*The Pmod8LD.*

Features include:

- Eight high brightness green LEDs
- BJTs for low-power logic level control
- Small PCB size for flexible designs 1.1 in × 0.8 in (2.8 cm × 2.0 cm)
- 2×6-pin Pmod port with GPIO interface

## 1 Functional Description

The Pmod8LD utilizes individual transistors so that each LED can be turned on or off independently. In order to active an LED, the associated pin on the pin header must receive about 1mA of current.

## 2 Interfacing with the Pmod

The Pmod8LD communicates with the host board via GPIO pins. Correspondingly, to turn a particular LED on, the pin must be driven to a logic high state and driven to a logic low state to turn a LED off. With the parallel arrangement of these LEDs it is possible to turn on (or off) multiple LEDs simultaneously.

A pin description and diagram are provided below.

Header J1		
Pin	Signal	Description
1	LD0	LED 0
2	LD1	LED 1
3	LD2	LED 2
4	LD3	LED 3
5	GND	Power Supply Ground
6	VCC	Power Supply (3.3/5V)
7	LD4	LED 4
8	LD5	LED 5
9	LD6	LED 6
10	LD7	LED 7
11	GND	Power Supply Ground
12	VCC	Power Supply (3.3/5V)

Table 1. Pinout description table.

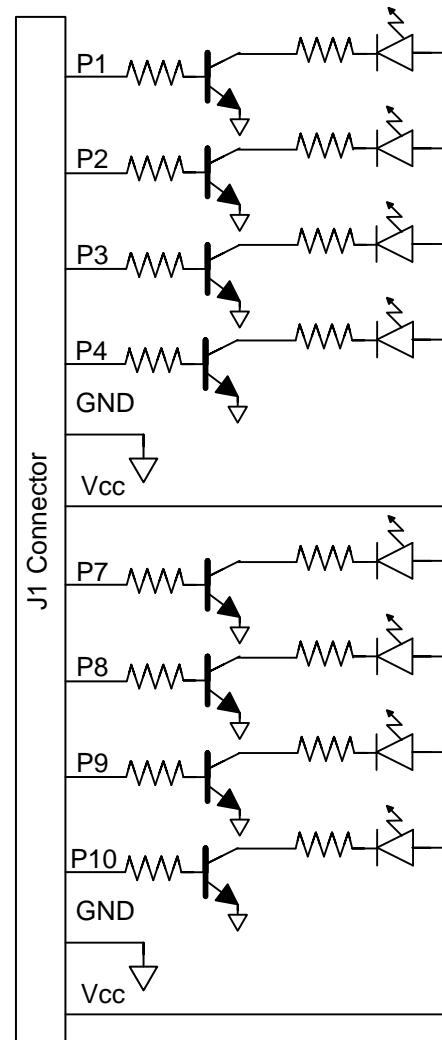


Figure 1. Pmod8LD module circuit diagram.

### 3 Physical Dimensions

The pins on the pin header are spaced 100 mil apart. The PCB is 1.1 inches long on the sides parallel to the pins on the pin header and 0.8 inches long on the sides perpendicular to the pin header.