

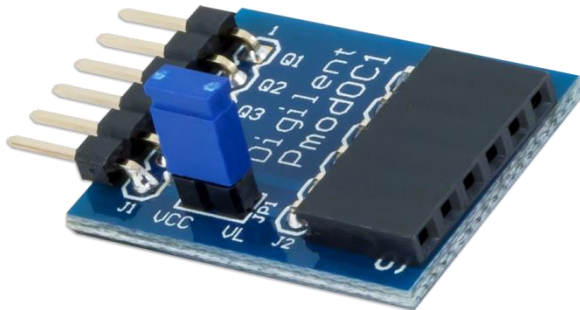
PmodOC1™ Reference Manual

Revised April 12, 2016

This manual applies to the PmodOC1 rev. C

Overview

The Digilent PmodOC1 uses open-collector BJT's to drive high current applications.



The PmodOC1.

Features include:

- Four 100mA (200mA max) [MMBT3904 transistors](#)
- Four output clamp diodes
- 40V voltage threshold
- Small PCB size for flexible designs 1.0" × 0.8" (2.54 cm × 2.0 cm)
- 6-pin Pmod port with GPIO interface
- Follows Digilent Pmod Interface Specification Type 1

1 Functional Description

The PmodOC1 utilizes MMBT3904 transistors in an open collector format. Each transistor can drive up to 100 mA of current individually and can draw up to 200 mA of current.

2 Interfacing with the Pmod

The Pmod communicates with the host board via the GPIO protocol. A logic level high voltage will “turn on” the BJT and a logic low signal will keep the BJT “off”.

| Pin | Signal | Description |
|-----|--------|-----------------------|
| 1 | P1 | Output 1 |
| 2 | P2 | Output 2 |
| 3 | P3 | Output 3 |
| 4 | P4 | Output 4 |
| 5 | GND | Power Supply Ground |
| 6 | VCC | Positive Power Supply |

Table 1. Pinout description table.

Any external power applied to the PmodOC1 must be within 2.7V and 5.25V; however, it is recommended that Pmod is operated at 3.3V.

3 Physical Dimensions

The pins on the pin header are spaced 100 mil apart. The PCB is 1 inch 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.