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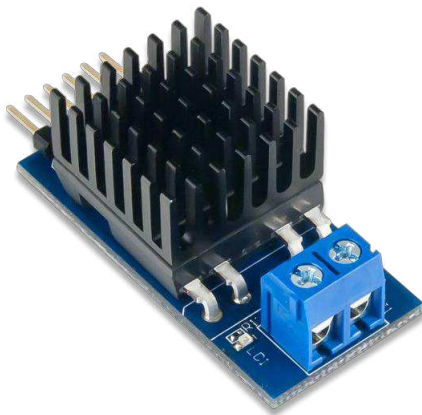

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Pmod SSR Reference Manual

Revised January
This manual applies to the Pmod SSR rev. B

Overview

The Digilent Pmod SSR (Revision B) is a solid state relay that features [IXYS' CPC1908J](IXYS'%20CPC1908J). The Pmod SSR uses a switch controlled by a single GPIO pin and is rated to block up to 60 Volts and pass up to 15 Amps.

The Pmod SSR.

Features:

- Solid State Relay electronic switch
- Open/closed status LED
- 1×6-pin Pmod port with GPIO interface

1   Functional Description

The Pmod SSR uses a single GPIO pin to establish a connection between two terminals.

2   Specifications

Parameter	Rating	Units
Maximum Blocking Voltage	60	V_P
Maximum Peak Current	25	A_P
Maximum Continuous Current	15	A_{rms}/A_{rms}
On-resistance	0.09-0.3	Ω
Turn-on Switching Speed	20	ms
Turn-off Switching Speed	5	ms

3 Interfacing with the Pmod

The Pmod SSR communicates with the host board via a GPIO pin. To open the relay, the ON pin must be driven to a logic high state. To close the relay, the ON pin must be driven to a logic low state.

3.1 Pinout Description Table

Pin	Signal	Description
1	ON	Switch Control
2	NC	Not Connected
3	NC	Not Connected
4	NC	Not Connected
5	GND	Power Supply Ground
6	VCC	Power Supply (3.3/5V)

4 Physical Dimensions

The pins on the pin header are spaced 100 mil apart. The PCB is 1.7 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.

5 Additional Information

The schematics of the Pmod SSR are available here.

Example code demonstrating how to use the Pmod SSR can be found at the Pmod SSR Resource Center.

If you have any questions or comments about the Pmod SSR, feel free to post them under the appropriate section ("Add-on Boards") of the Digilent Forum.