



Relay Shield Datasheet (v1.0.0)



learn with Surilli

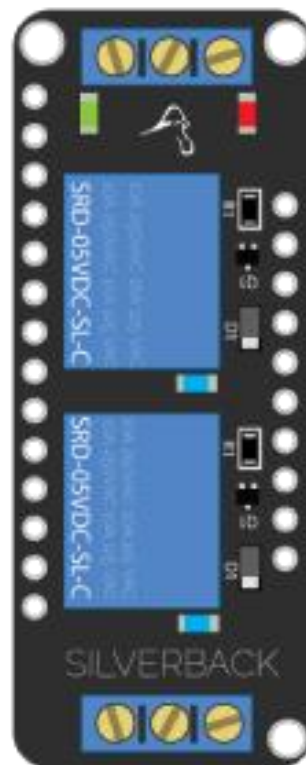


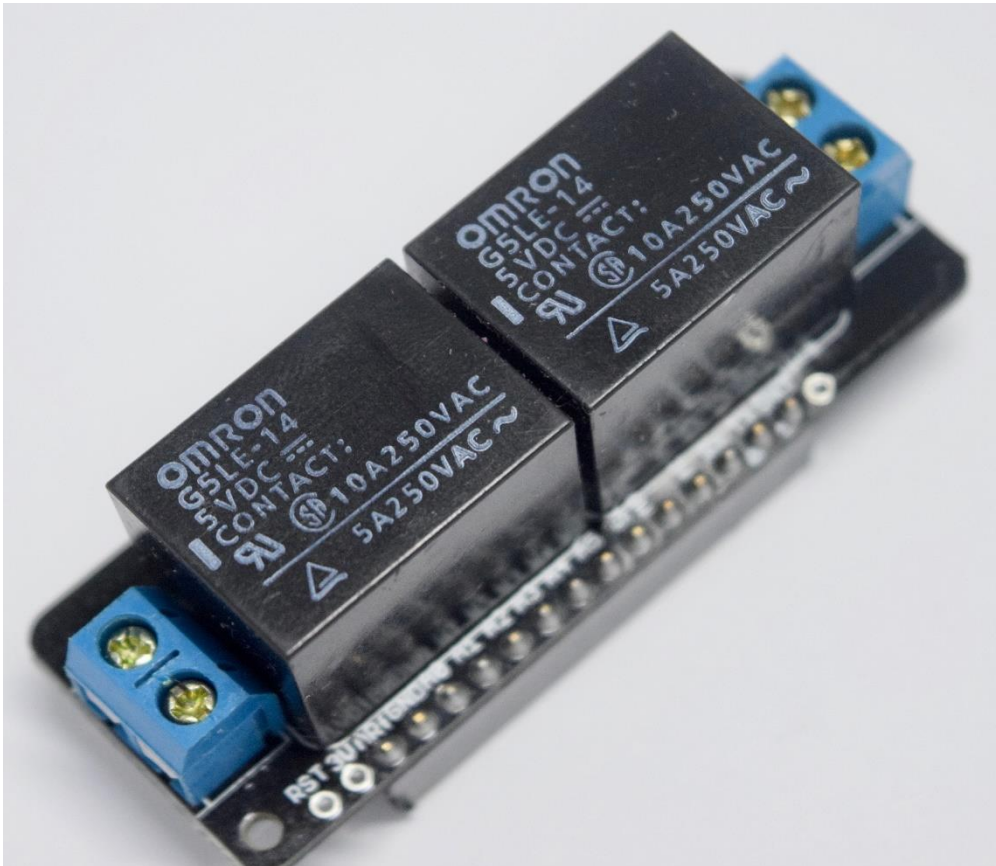


Table of Contents

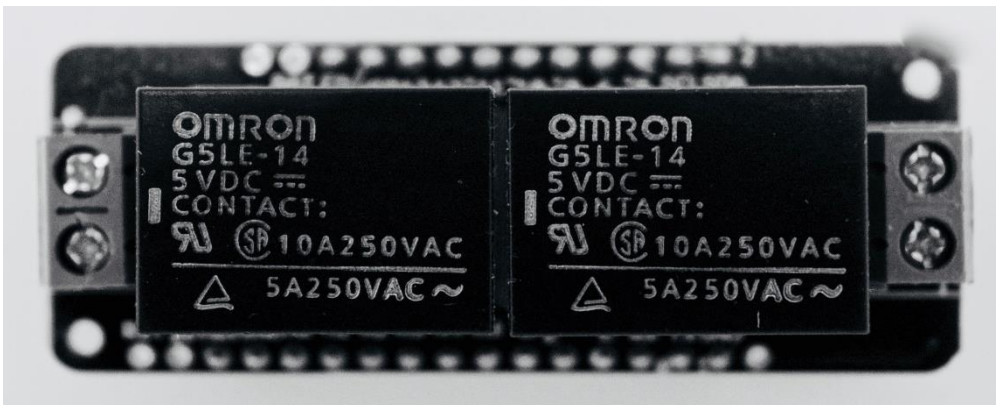
Overview	3
Functional Description	4
Pinouts	5
Relay Output	5
Relay Control.....	5
Schematic.....	6
Relay Circuit	6
Fabrication Print.....	7
Top	7
Bottom	7
Layout.....	7
Datasheets	8
G5LE-14	8

Overview

Relay Shield is the new add on board from Silverback. It is light and easily stackable on all boards of Surilli. It can easily switch your lights, fans, solenoids and other small appliances that run on 230VAC or DC power. This one can handle up to 2x1000 Watts!



This Add-on board will work with all of our Surilli boards, just wire up the relay control pin to whatever GPIO you like. Using our any Surilli series board you can stack relay board on it. Check the datasheet for the relay for the exact switching capability, as it depends on type of load and voltage type. This relay is good for handling fairly large devices, computers, TVs, small appliances and more.

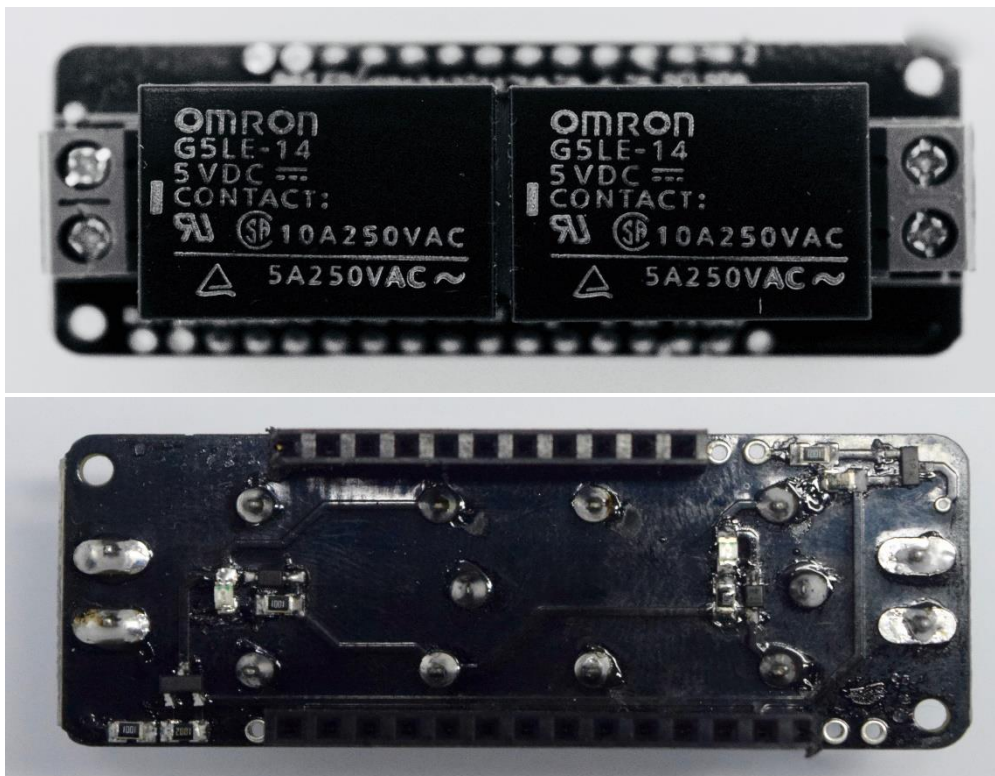


Please note: If you are using high voltages use care! High voltages require experience, and are only for use by engineers who are familiar with guidelines and know how to use them safely

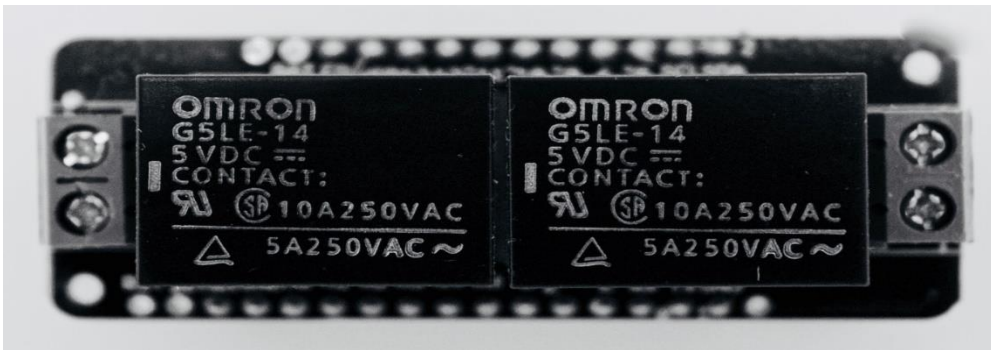
Functional Description

Here's some handy specs! Like Relay shield you get:

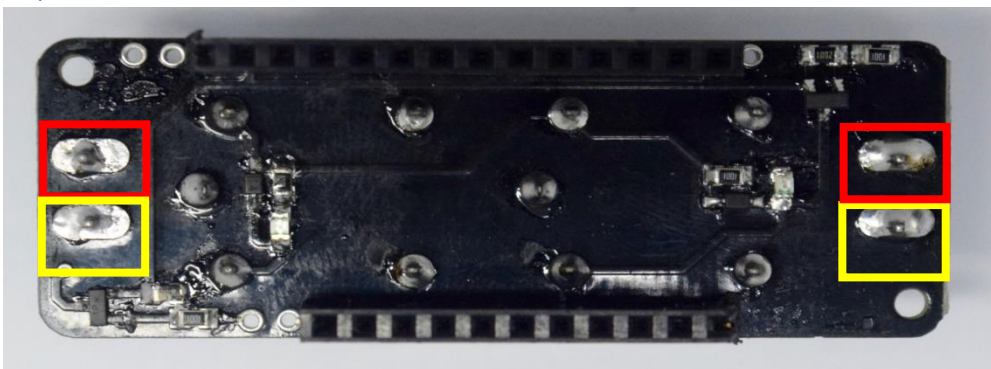
- Measures: 62mm x 23mm x 20.2mm
- Switch two loads easily
- Coil Voltage 5VDC
- Switch up to 10A at 120VAC resistive load
- Switch up to 10A at 240VAC resistive load
- Switch up to 2.5A at 240VAC Inductive Load
- Light weight - 33 grams



Pinouts



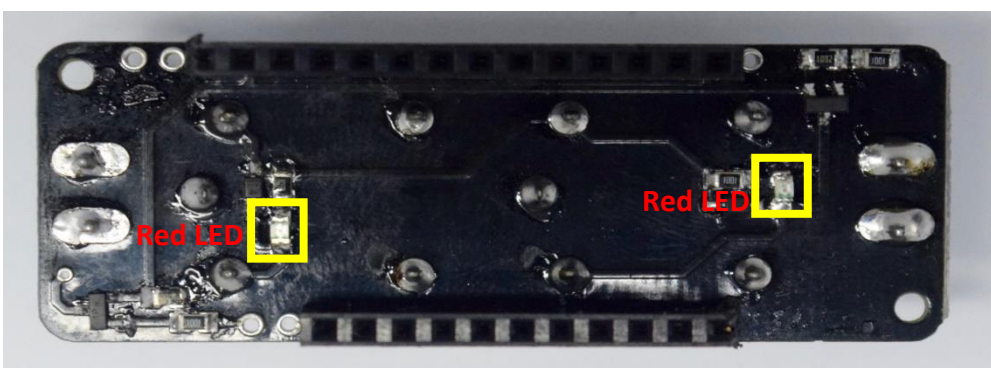
Relay Output



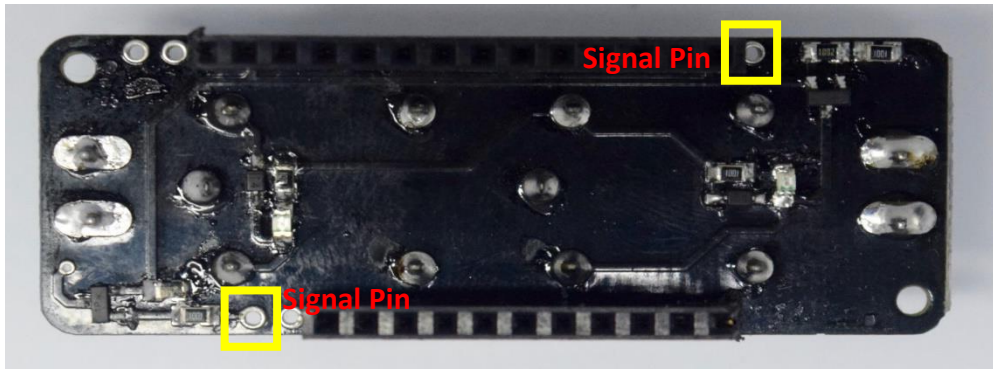
- **NO** – Terminal pin marked with red is NO pin of Relay it will make connection with COM pin when input signal on coil is high
- **COM** - Terminal pin marked with yellow is COM pin of Relay it will make connection with NO pin when input signal on coil is high else it is connected with NC pin of Relay
- **NC** – when the input signal is low it is NC pin of relay is internally connected with COM pin of relay

Relay Control

Controlling the relay is very simple. Relay uses a signal pin for switching it will switch ON when input signal is high and it will switch OFF when input signal is low or 0. A red led next to diode will let you know the status of signal (led glow when signal is high and off when signal is low).

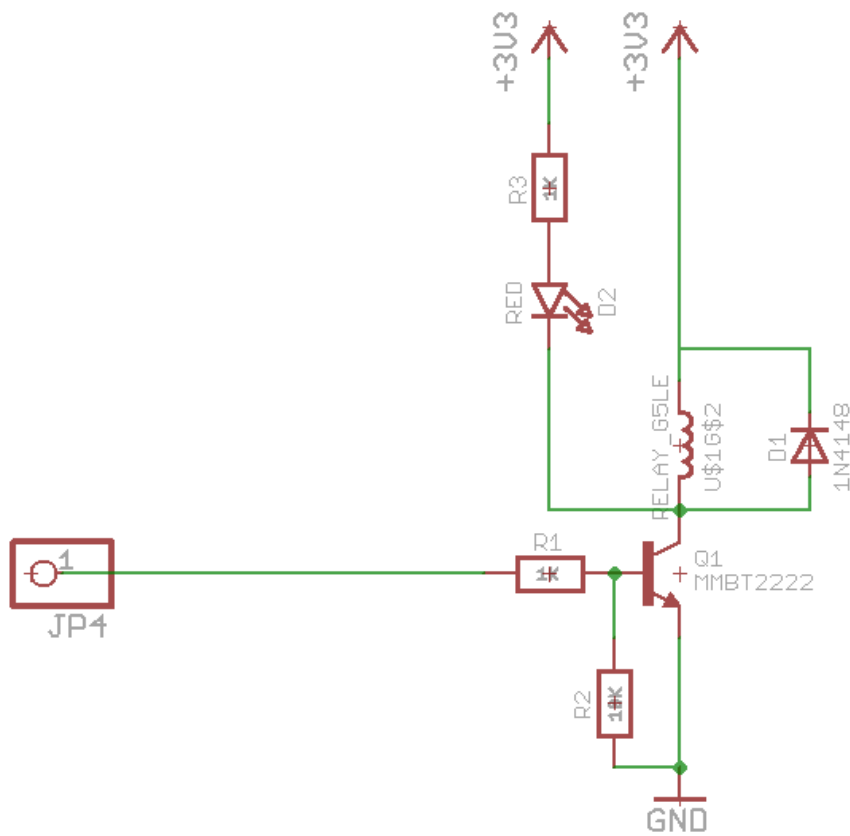


You have lot of options for switching relay from any GPIO pin of Surilli. What you need is to sold signal pin and make connection with any GPIO pin of Surilli board.



Schematic

Relay Circuit

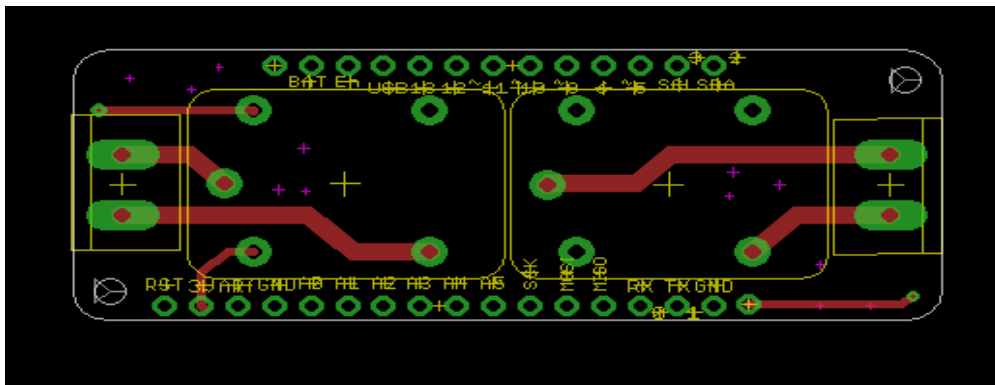




Fabrication Print

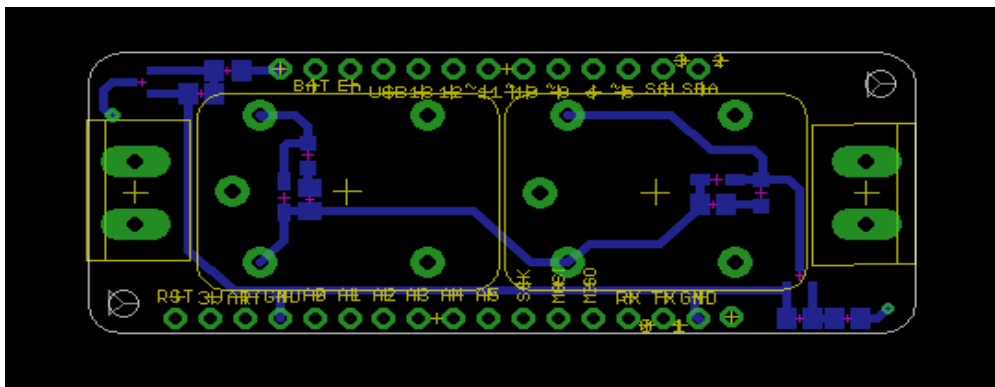
Top

Top view of the PCB Layout



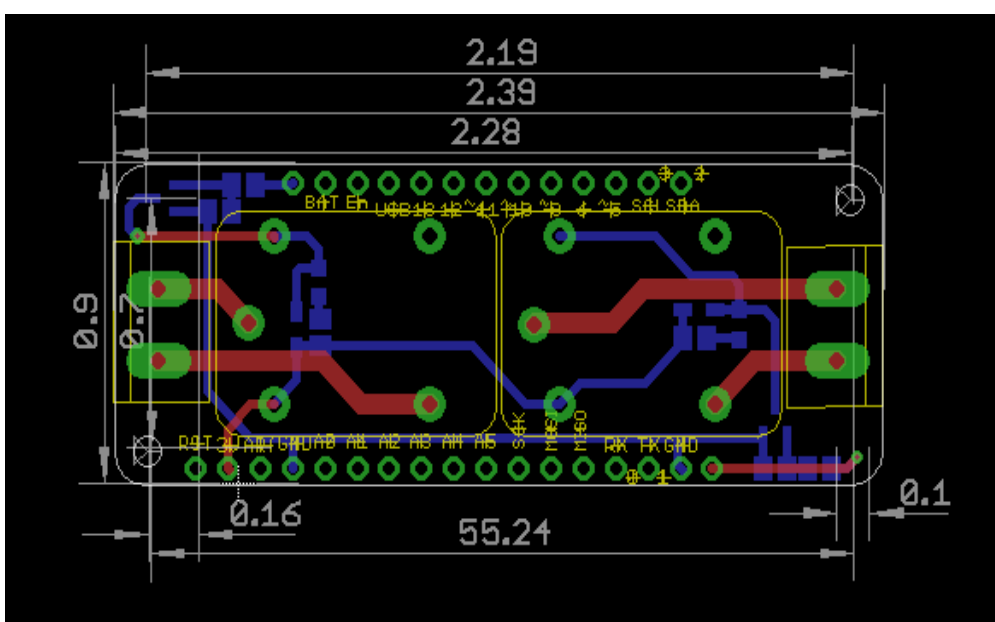
Bottom

Bottom view of the PCB Layout



Layout

Dimensions are in Inches





Datasheets

G5LE-14

<http://surilli.io/Resources/files/data-sheets/G5LE-14.pdf>