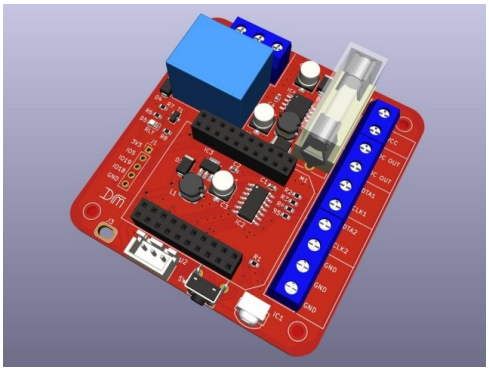
Datasheet

ESP32 LED Pixel (WS2812) Driver Board - **MLP201150**

Features and Benefits

- Supports Wemos ESP32 boards
- 5V or 12V Operation
- On-board regulator powers the Wemos board
- Dual outputs Data & Clock (total of 4)
- 5V data output to LED pixels
- On-board fuse 5A (max 10A)
- Screw terminal connections
- Analogue audio input option
- Relay output
- IR Receiver



Product Details

The MLP201150 provides a solution for connecting WS2812 or similar LED pixel strips to the popular Wemos D1 Mini ESP32 Wi-Fi modules. An on-board 74HCT125 line driver provides a 5V P/P output from the normal 3.3V outputs supplied by the ESP32 & ESP8266 chips.

The board provides a 20mm fuse the two LED outputs. The board can be used with either 5V or 12V LED strips when using the appropriate power supply.

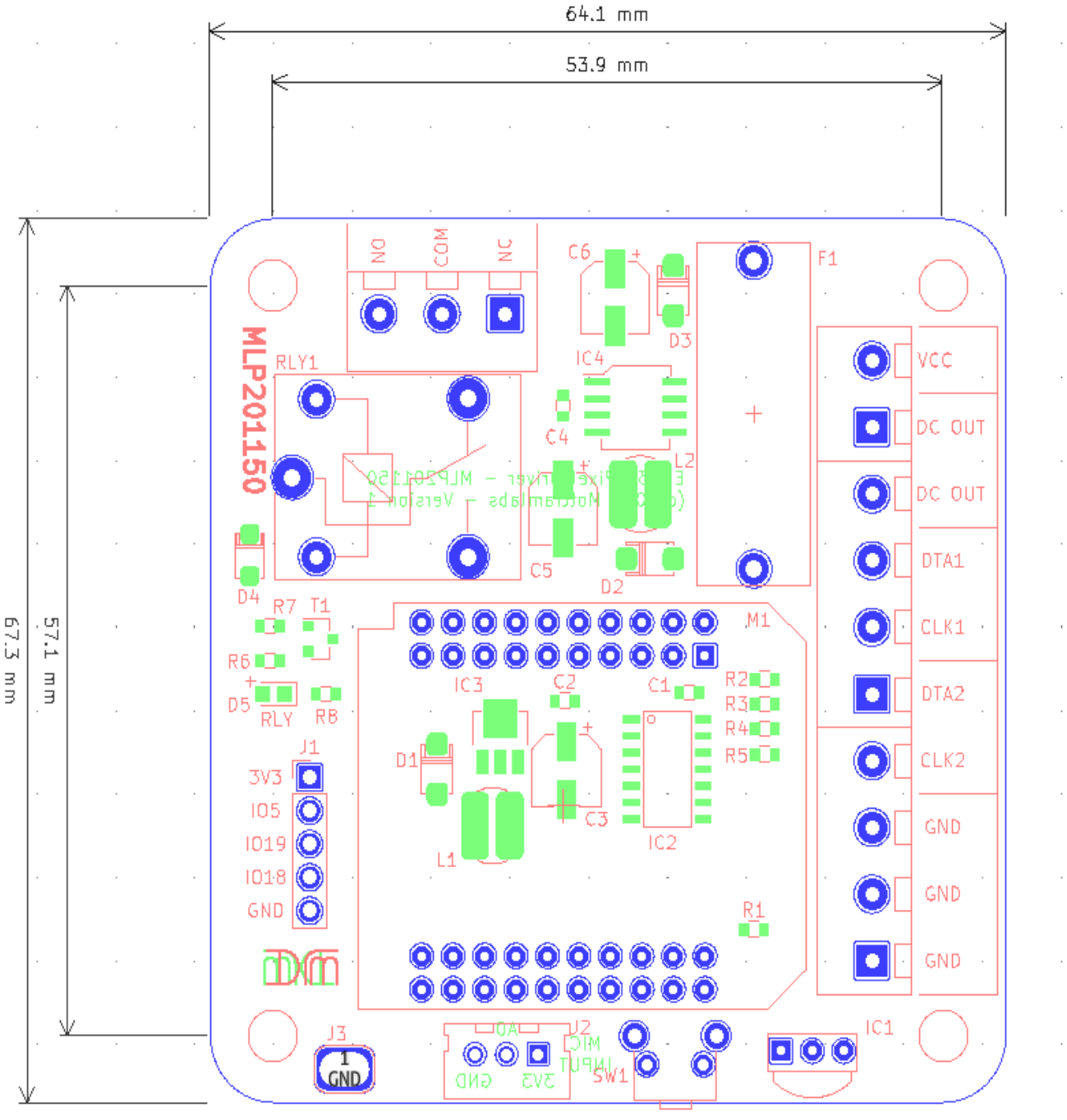
A Sound reactive option is possible via a 3 pin header for use with an external analogue microphone board, the microphone is then connected to the Wemos D1 Mini's analogue input.

A relay is also provided for control by the Wemos board, for low voltage use only. The relay must **not be** used for **mains** voltage.

Also a push button for use with WLED firmware. An IR receiver for use with WLED.

Peripheral Connections and I/O Mapping	
Function	**ESP32**
Data 1	IO2
Clock 1	IO4
Data 2	IO16
Clock 2	IO17
Push Button Switch	IO0
IR Receiver	IO21
Relay Control	IO22
Audio	SVP

MLP201150 - Connnections



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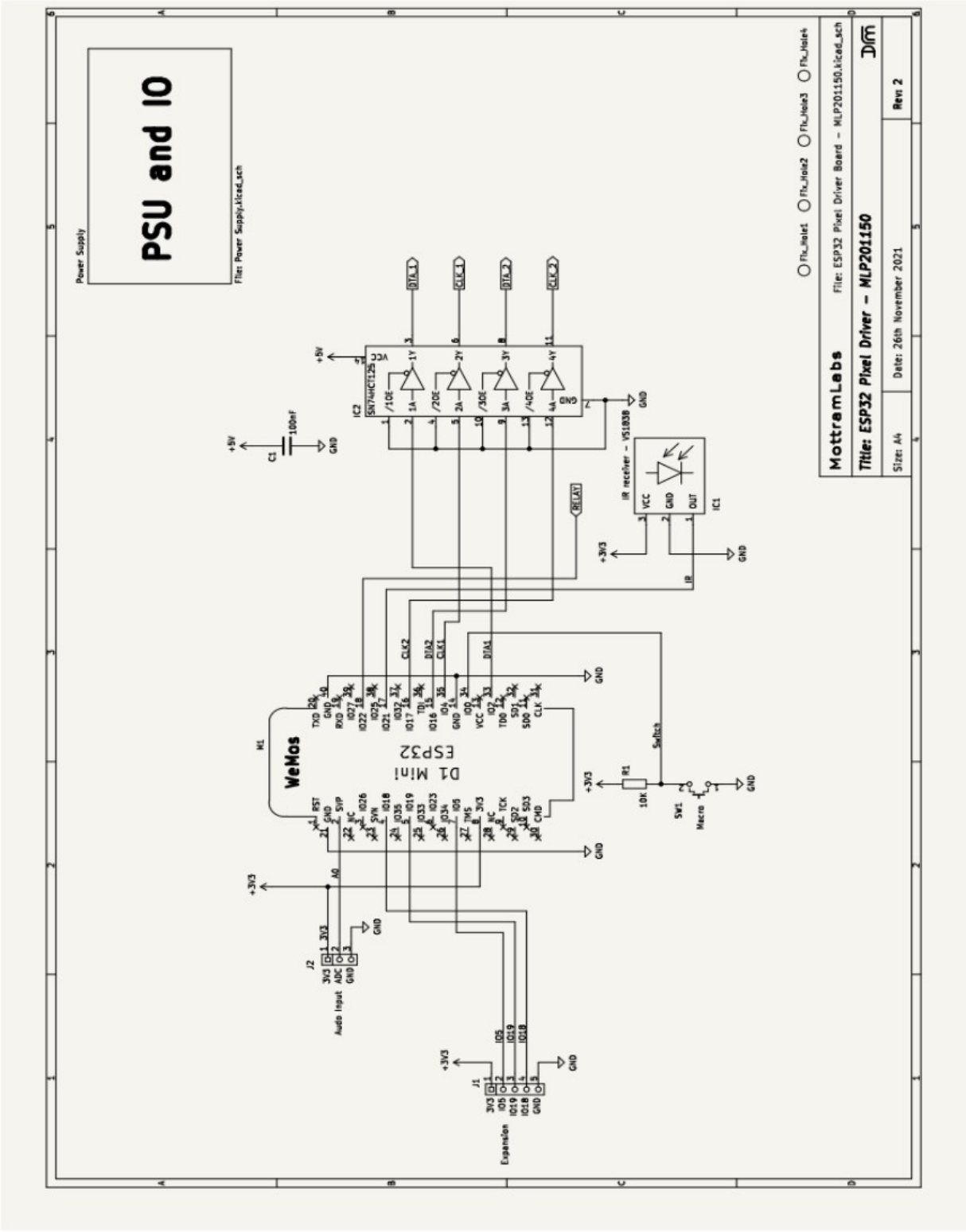

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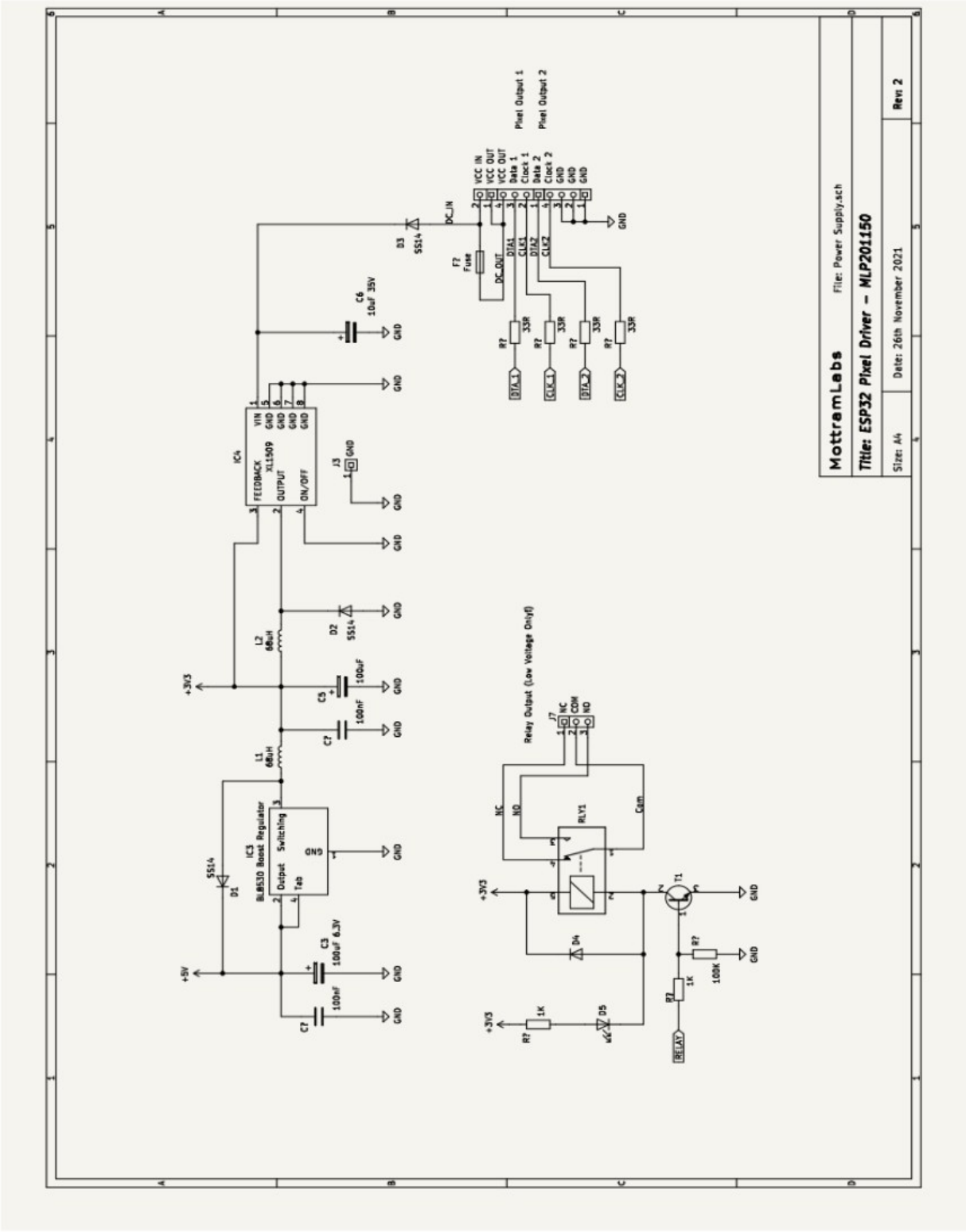

Software – WLED

Although the board can work with a range of software one of the most popular and feature rich is WLED. Below are some links to the WLED project page and a fork “WLED Sound Reactive”. This version adds as the name suggests sound reactive modes, this version requires an external audio input. The simplest way is to add a microphone board to the Wemos D1 Mini’s analogue input.

Flashing Tool

ESPHome-Flasher is a python utility for programming the Wemos D1 Mini
https://github.com/esphome/ESPHome-Flasher

WLED

WLED Github Page
https://github.com/Aircoookie/WLED

WLED Releases
https://github.com/Aircoookie/WLED/releases

Sound Reactive WLED

Sound Reactive WLED Releases
https://github.com/atuline/WLED/releases

Sound Reactive Wiki
https://github.com/atuline/WLED/wiki

Audio connection Options
https://github.com/atuline/WLED/wiki/Analog-Audio-Input-Options

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