

NLED WS2811 MOSFET Driver Module

Based on the popular and common WS2811 chipset, this 3 channel MOSFET driver features high current and high voltage outputs that can be controlled just like a standard WS2811/WS2812 pixel. Perfect for controlling 12 volt RGB LED strips or other types of higher current LED configurations. These driver modules can be chained or mixed together with other WS2811/WS2812 pixels. Easy to interface from an Arduino, PIC, ESP, NLED pixel controllers or other logic devices that can control addressable pixels.

Features:

- WS2811 chipset based.
- 3 Channels of High Current and High Voltage Outputs.
- 8-Bit PWM Resolution(16 Million Colors) at 400Hz PWM Frequency.
- Output Channels Are In Current Sink(Common Anode) Configuration.
- Functions just like WS2811/WS2812/B LED strip, but allows dumb/standard/analog LED strip to be controlled.
- Can be mixed with standard WS2811/WS2812B pixels.
- Supports 15 Amp Total, 5 Amps Per Channel. Outputs Support Up To 10A Individually.
- Compatible with all WS2811/WS2812 Pixel Controllers.
- Serviceable Design, in case of any damage caused by accidents.
- Includes a Full 3 Year Warranty and Satisfaction Guarantee.

Input Voltage	5 volts*, 7 - 24 volts
Outputs	3 Channels, Current Sink
Max Current Per Output	10 Amps(12v), 8 Amps(24v)
Max Current Overall	15 Amps
PWM Frequency	400Hz
Output Terminal Spacing	0.2"(5.08mm)
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PCB Dimension	1.5" x 1.5"

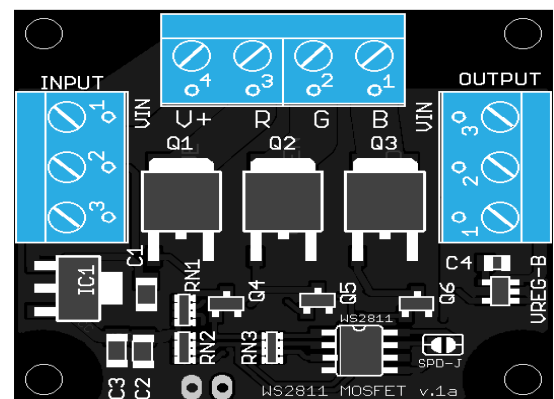


Fig. 1a

*5 volt input voltage requires manually installation of a jumper wire.

Module Pinout and Descriptions

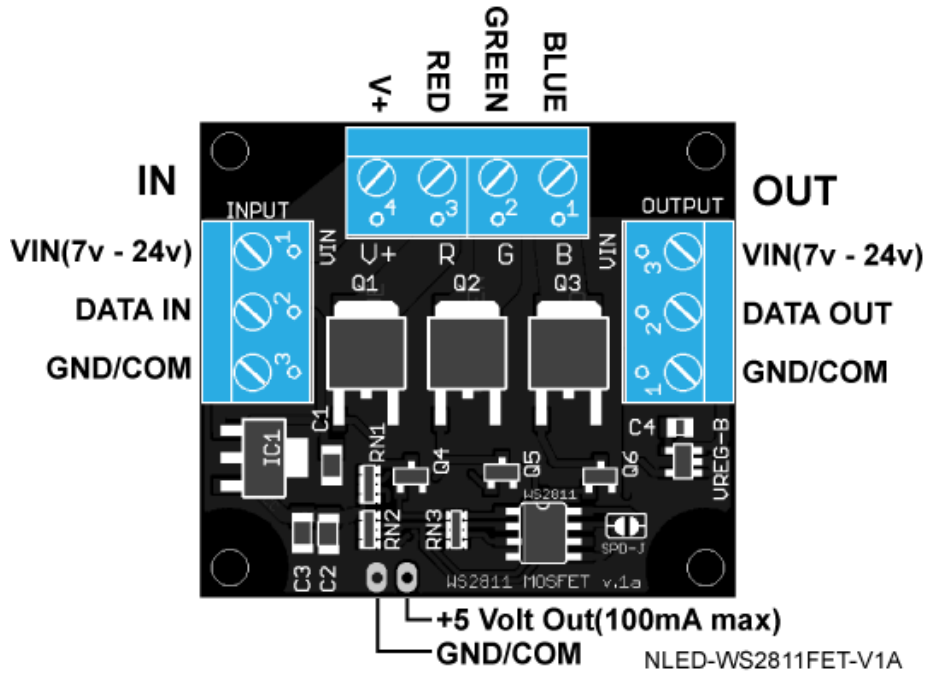
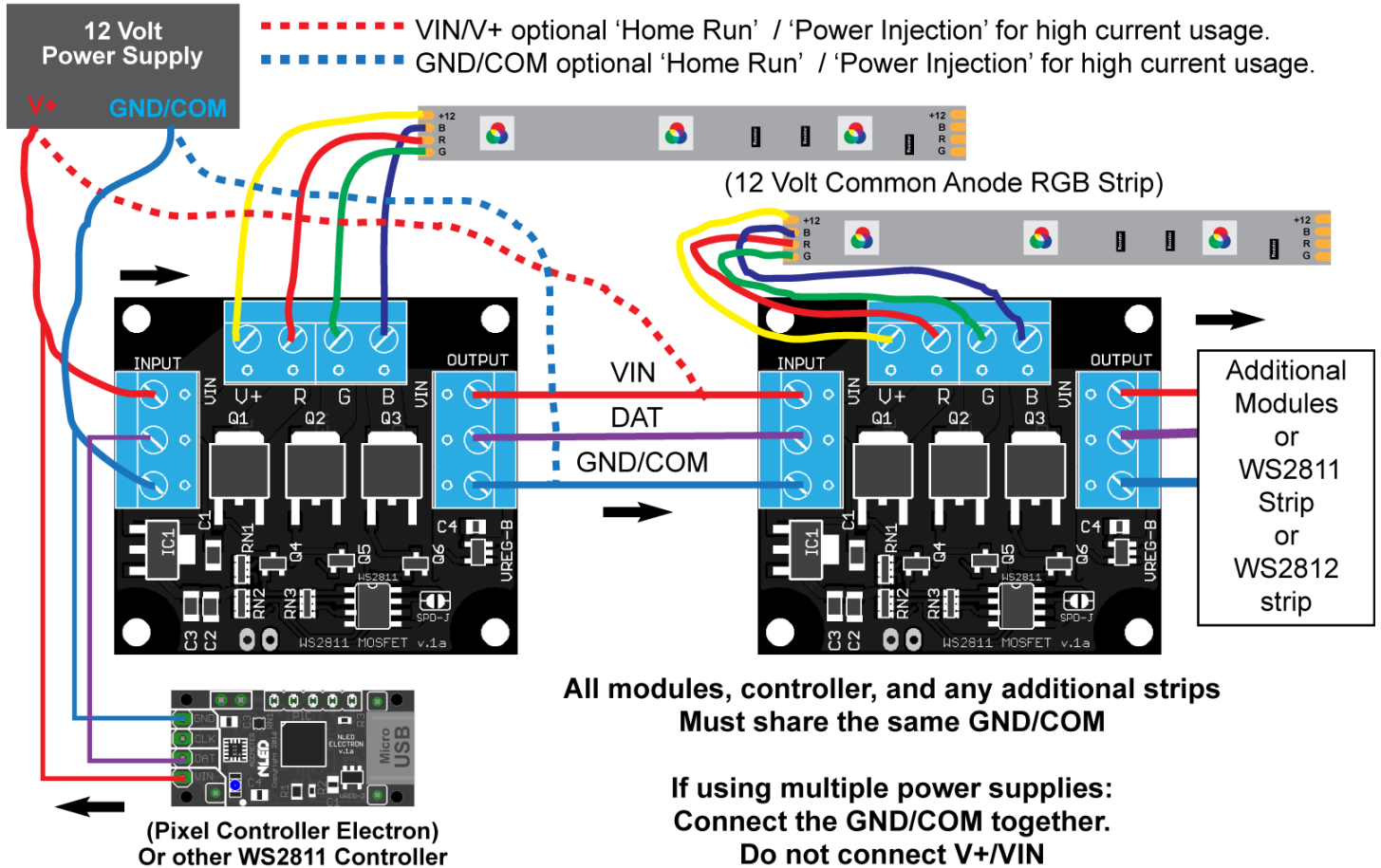


Fig. 2a

Module Wiring Example

Fig. 2b



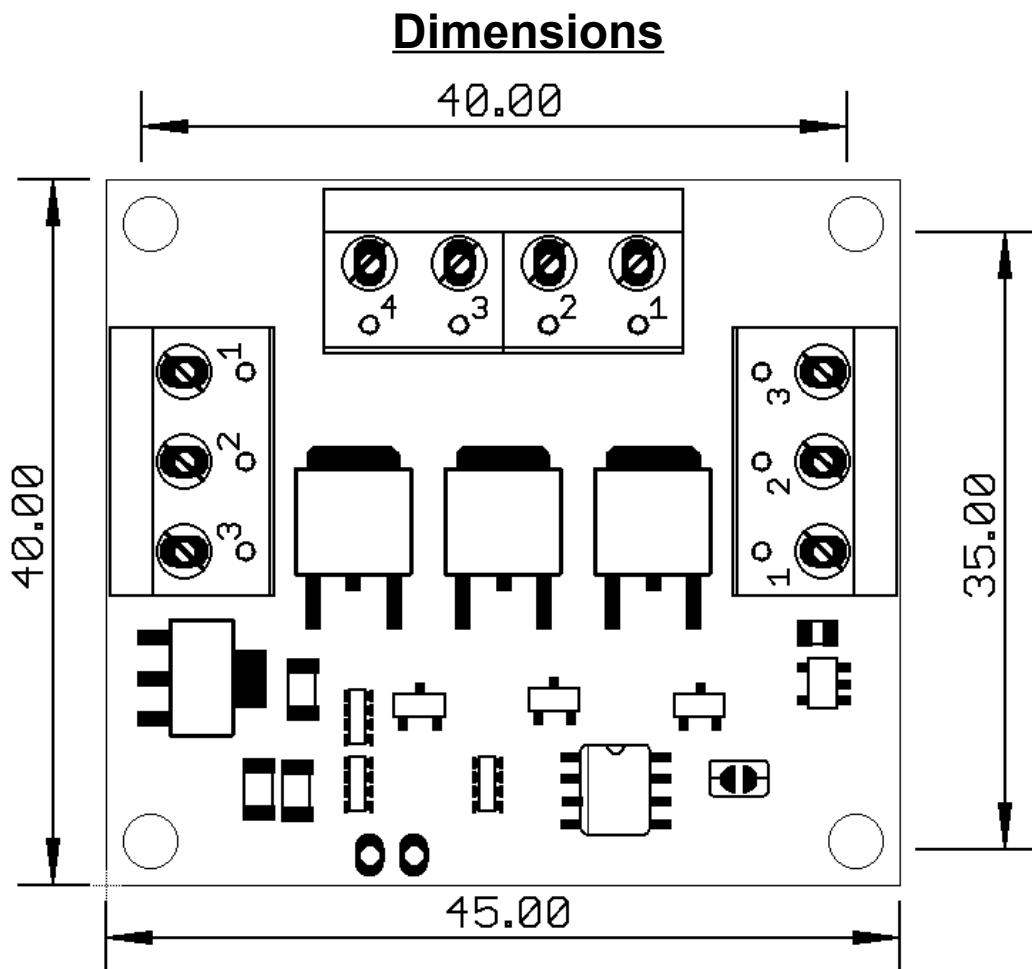
Voltage Regulator Options

These modules offer two voltage regulator options. The voltage regulator decreases the input voltage to the 5 volts required by WS2811 chip. The regulators are not required for direct 5 volt usage, but would require jumping the correct pads.

All devices manufactured by NLED will use Option #1, for full 24 volt compatibility.

Option 1: For up to 24 volt input voltages. Populated IC1 with UA78M05CDCYR or similarly rated component.

Option 2: For voltages up to 12 volts. Populate VREG-B with AP2210K-5.0TRG1, and C4 with 100pF(0805) capacitor.



Terminal Spacing: 0.2" / 5.08mm
 Mounting Hole Diameter: M3 / 3mm

Fig. 3a