

NLED WS2816 MOSFET Driver Module

Based on the latest WS2816 chipset this module features 3 output channels for RGB LED control, each with 16-bit(65,535 levels) resolution. This module allows standard 12v or 24 volt constant voltage LED strips and modules to be controlled just like an addressable pixel. This module can be used by itself, in a string of multiple modules, or connected to other addressable LED pixel strips that use a compatible protocol.

Easy to interface from an Arduino, PIC, ESP, NLED pixel controllers or other logic devices that can control addressable pixels.

Input Voltage	7 – 24 volts
Max Current, Total	15 Amps
Max Current, Per Output	4 Amps
Quiescent Current Draw	< 5mA
Number of Channels	3 (RGB)
Connectors	Solder Pads or Screw Terminals
Protocol	WorldSemi WS2816
Data Voltage, Input	TTL, 5 volt (3.3v levels possible, controller dependent)
PWM Frequency	10KHz
PWM Resolution	16-bit(65,535 levels)
Color Order	GRB
ESD Protection, Data	±4kV on DATAIN, ±12kV on DATAOUT
ESD Protection, Power	±8kV / ±15kV
Board Dimensions	45mm x 35mm, Height: 13mm / 3mm(unpopulated)

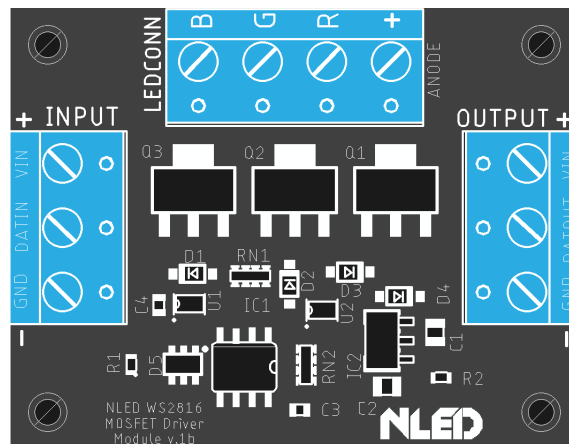


Fig. 1a

Pinout

All external connections have large solder pads for directly attaching wires to the top of the PCB
Or standard screw down terminals may be used, hole pitch is 5.08mm

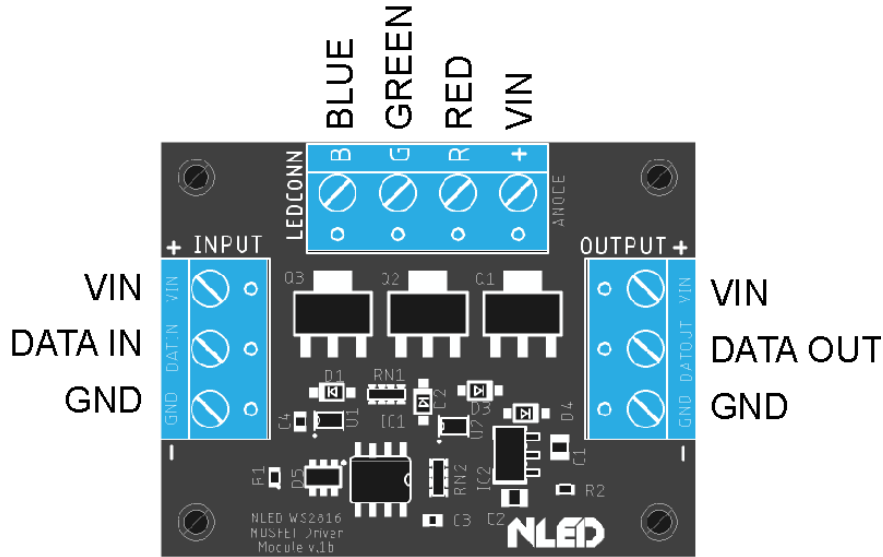


Fig. 2a

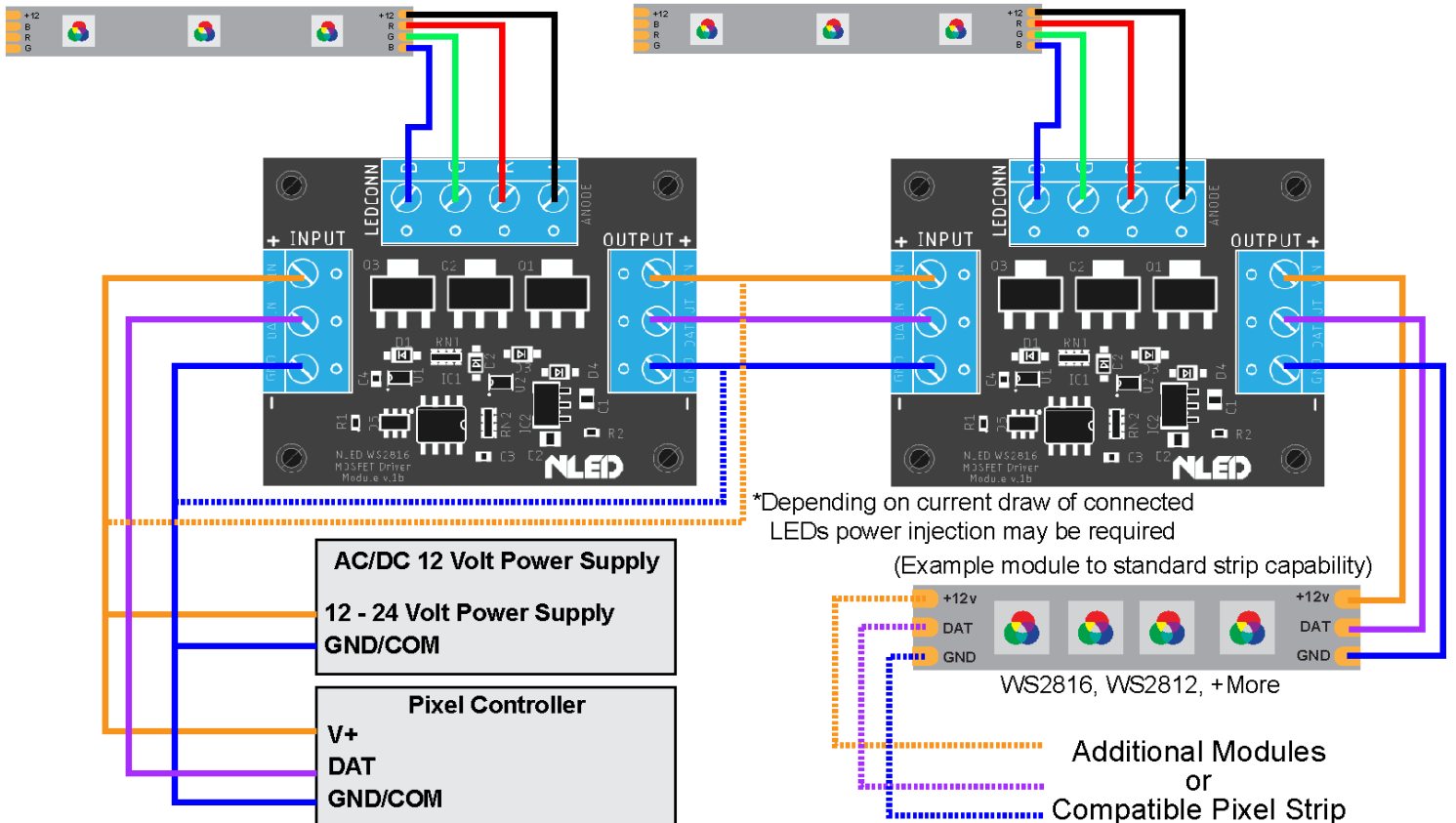


Fig. 2b

Dimensions and Mounting

3D .step models can be found on the device's webpage.

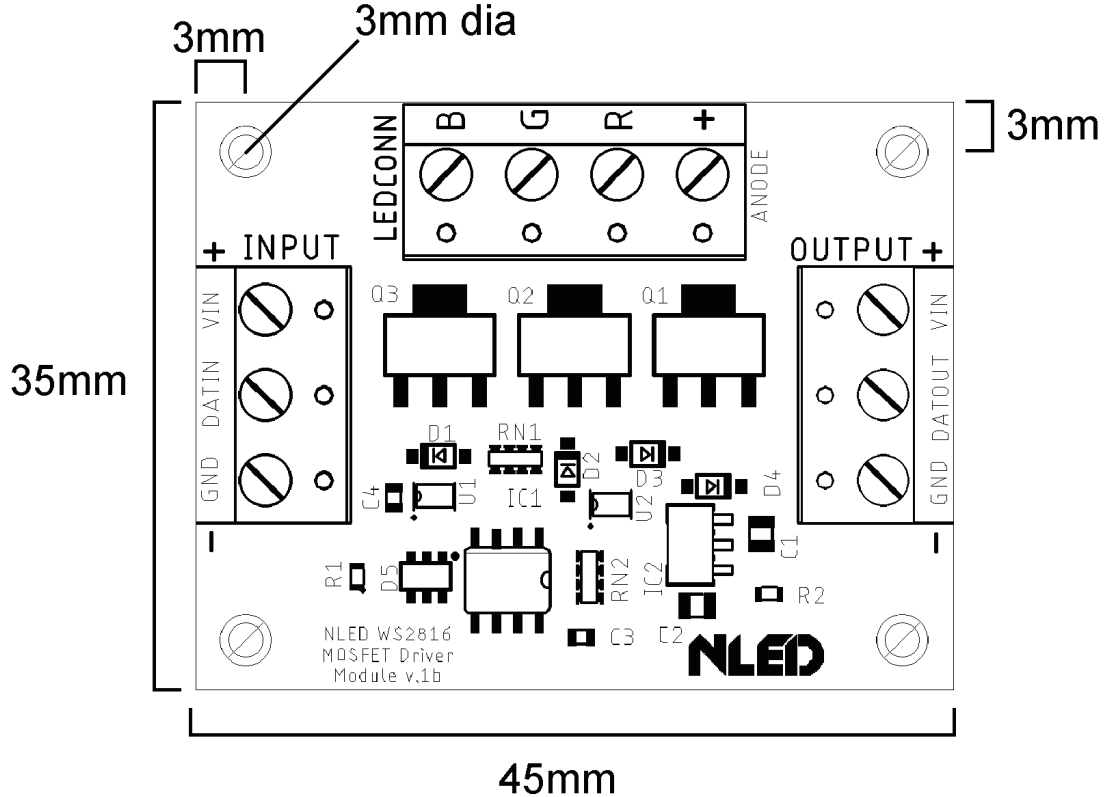


Fig. 3A

Height, Standard/Screw Terminals: 13mm
Height, Unpopulated: 3mm

Mounting Notes:

- Do not allow the PCB to touch anything conductive.
- Do not allow foreign material to fall onto or accumulate on the device.
- The device should be kept dry and clean. If the device becomes wet or dirty, do not use until it is cleaned and dried. Contact Us for assistance.

NLED is available to create new designs and derivatives of current designs customized to the clients requirements, please Contact Us with your specifications.