

NLED RS485 Isolator

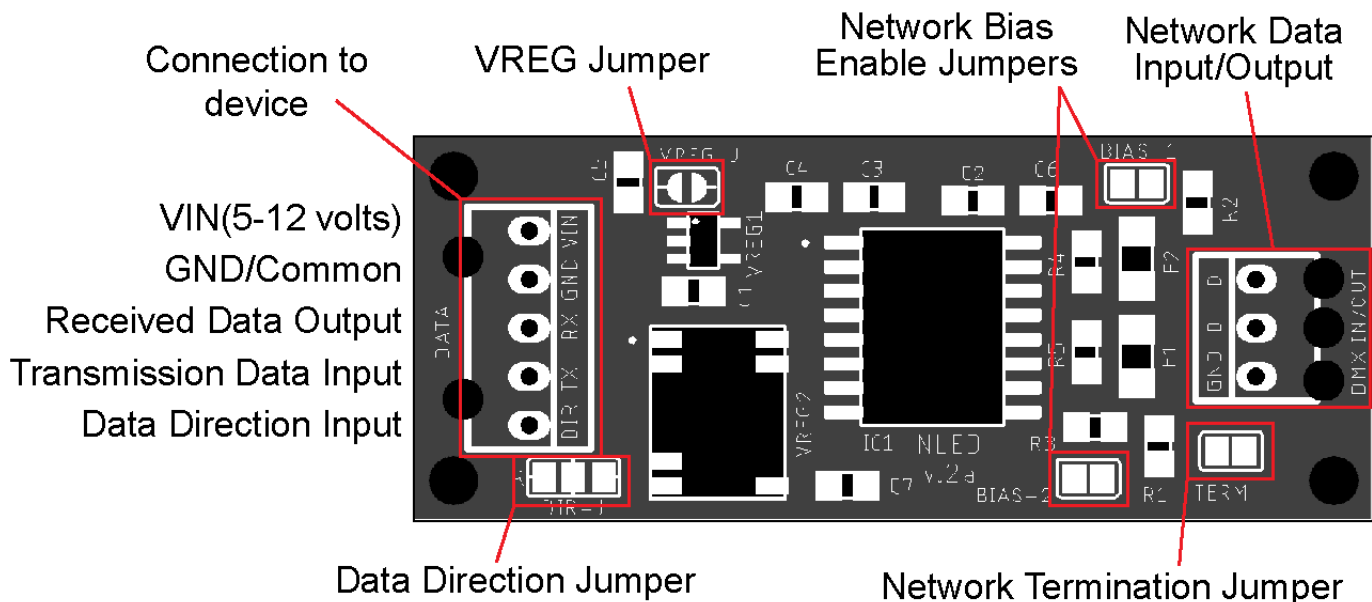
This module provides full isolation connections between TTL compatible devices and RS485/DMX-512 networks.

Features:

- Full Isolation, Up to 2500v for 60 seconds.
- Half Duplex.
- ESD Protection.
- Short circuit protected.
- Features a Texas Instruments ISO3082DWR, see component datasheet for additional specifications.
- Designed and Manufactured in the United States. Includes 3 Year Warranty and Lifetime Support.

Input Power	5 to 24 volts, maximum 15 amps
Connections	0.1"/2.54mm through holes with strain relief holes
Quiescent Current Draw	< 20mA
Networks	RS485, DMX-512, and others.
Data Input/Output	5v(TTL) & 3.3v
Max Bit Rate	20Mbps
ESD Protection	6kv
Maximum Input Voltage	12 volts
Board Dimensions	50mm x 40mm. Height: 4mm to 12mm

Fig. 1a



Configuration

VREG Jumper – VREG-J: Solder closed when powering with a 5 volt supply. Leave open if supply voltage is greater than 5 volts.

DATA Connections: Connect to TTL/5 volt compatible device. Such as a microcontroller, Arduino, etc.

DMX IN/OUT Connections: Connect to DMX-512 or RS485 network.

Data Direction – DIR-J: Optional use, slider jumper to 'T' for transmit or 'R' for receive. Or use the DMX-DIR connection to control the data direction externally.

Network Bias – BIAS-1 & BIAS-2: Optional use. If the module is the only transmitter on the DMX/RS485 network these jumpers can be soldered closed to enable strong pull ups on the network data lines. Only one device(the transmitter) on the network should pull up the data lines.

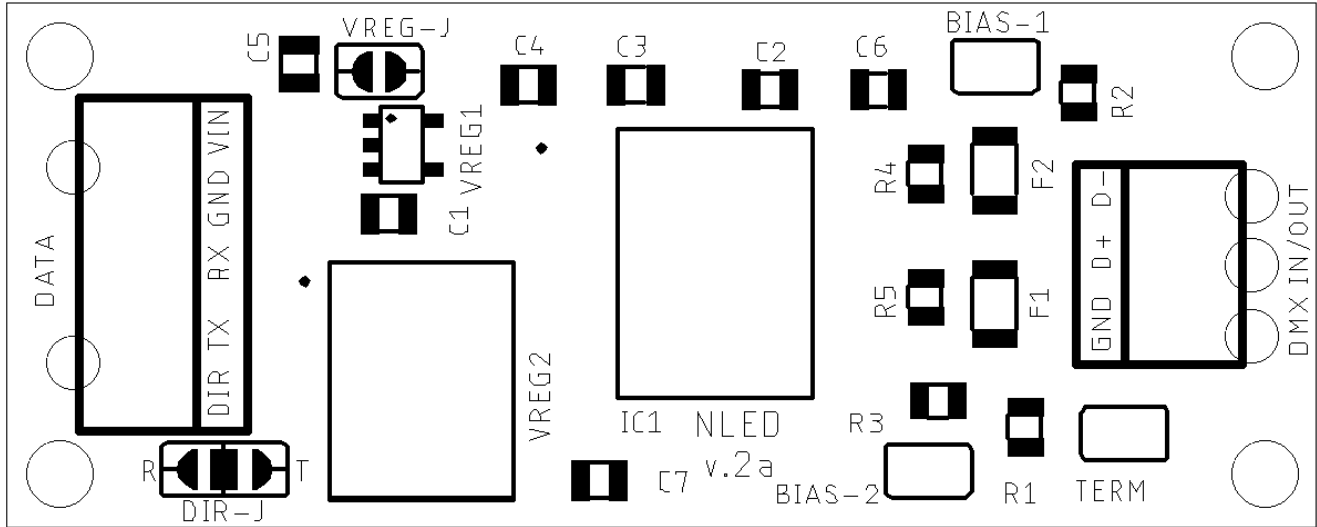
Termination – TERM: Solder jumper closed to terminate the network with a 120ohm resistor. Termination should only be used on the first and last device on the network.

Connections

All input and output connections are through holes with the standard DIP(0.1"/2.54mm) pitch, with wire strain relief holes.

Dimensions and Mounting

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



50mm x 20mm x 6mm

Fig. 3a

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.

Have Any Ideas For Future Updates?

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