RS485 to TTL

1. Descriptions

If you want to connect your microcontroller serially that's far away from each other than this module interfaces RS-485 to TTL or vice-versa. It has Auto Direction control, making it easier to use as RS-232/TTL Serial Interface replacement. RS485 is used for Serial Communications over longer distances, Twisted pair cable can work up to 1.2 Km distance. And support multiple units on the same bus (Multi-Drop). This converter provides two way serial communications signal conversion between the RS485 to and from a TTL. Up to 32 nodes per network. The converter is designed for office and industrial applications (non-isolated), and provides superior characteristics/features normally found only on more expensive units.

2. Features

- Ground Output for wire shielding.
- Transceiver Facility (Automatic Switching between Transmit/Receive mode of RS485)
- Twisted pair cable can work up to 1.2 Km distance
- Supports point-to-multipoint, this converter can connect up to 32 RS485 interface device.
- On board 3 Pin 5.08 mm pitch screw terminal to facilitate RS-485 communication wiring.
- Termination Resister Jumper provides option to use in Multi Drop RS485 network.
- Four mounting holes 2.5 mm for easy mounting.
- Built in terminal resistor of 100R Ohm
- Maximum distance between end-nodes is 1200m.
- Up to 32 nodes per network.
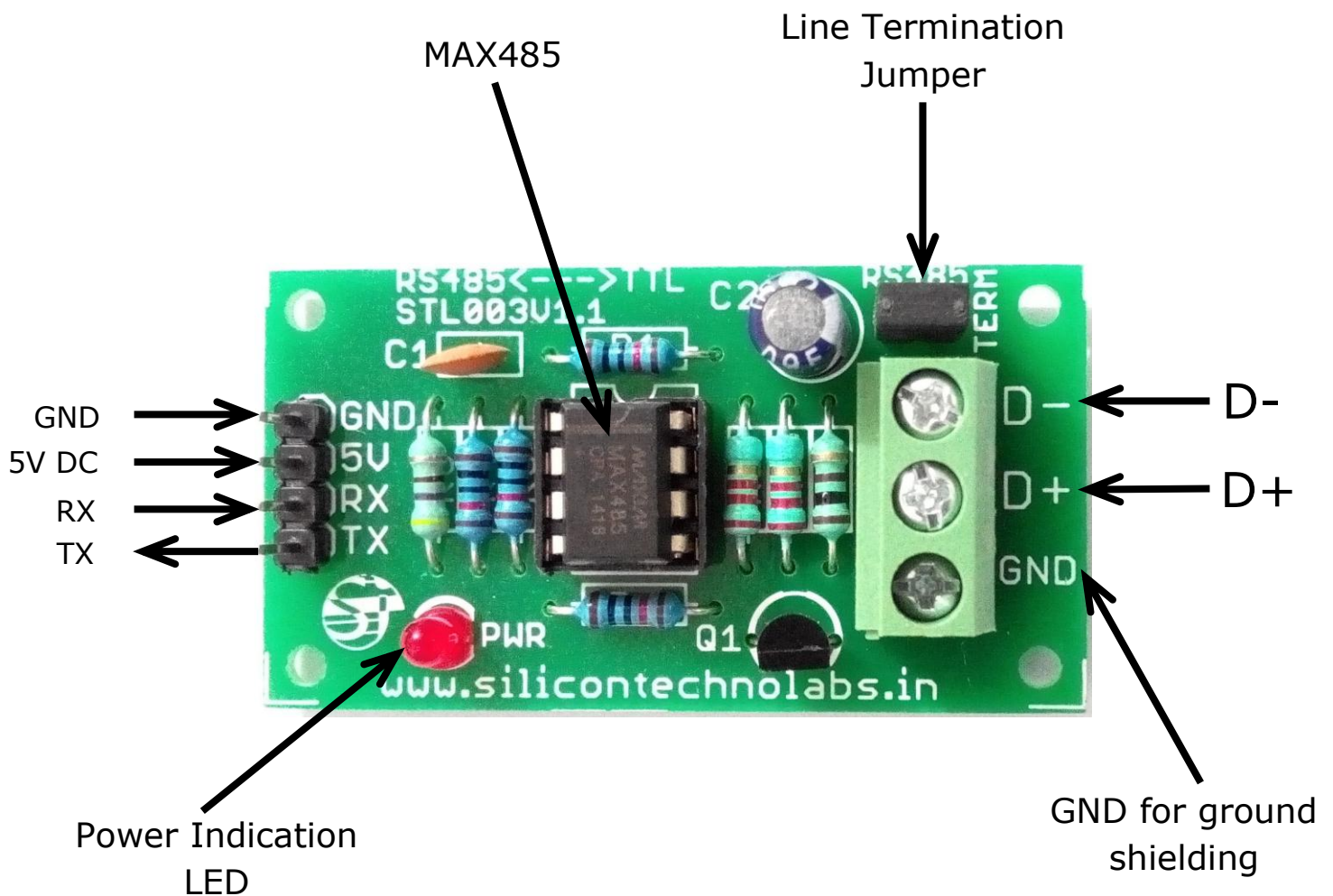- On board links are provided for enabling line termination (100 ohms).

3. Specifications

- Size : 50 x 27 x 15 mm (L x B x H)
- Hole size : φ2.5mm
- Operating Voltage : +5V. With on board RED LED power indication.
- RS485 I/O : D+, D-, Ground.
- TTL I/O : Tx , Rx.
- Baud rate : 300-38400bps.(Tested)

Note :-
Cable Type preferred for long rang RS485 communication :- Two core, Twisted Pair Shielded type. D+ and D- should be twisted with each other to get optimal range.

4.Hardware Details

MAX485

Line Termination Jumper

GND

5V DC

RX

TX

D −

D+

Power Indication LED

GND for ground shielding

Thank you
"Happy Coding"