



Device: MOD-1003

This document Version: 1.0

Date: January 2011

Description: Bidirectional level translator Module

Matches module version: v1.1

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Introduction

The MOD-1003 is a bi-directional level translator and 3.3v power supply based on the TX0104.

Features

The MOD-1003 supplies 3.3v regulator, able to supply up to 500mA. It features 4 pins that allow that function as both inputs and outputs (or both) without any “direction” setting requirements. The module will automatically translate both directions, which is especially useful for I/O in which the direction changes as part of the protocol (for example, I2C).

Construction

It's all built ready to go!

Connections

The MOD-1003 has two connection ports.

5V

5V	Positive supply, 5V
B1	Bidirectional pin 1
B2	Bidirectional pin 2
B3	Bidirectional pin 3
B4	Bidirectional pin 4
GND	Ground (Vss) connection.

3v3

3v3	3.3v available to power devices, up to 500mA
A1	Bidirectional pin 1
A2	Bidirectional pin 2
A3	Bidirectional pin 3
A4	Bidirectional pin 4
GND	Ground (Vss) connection.

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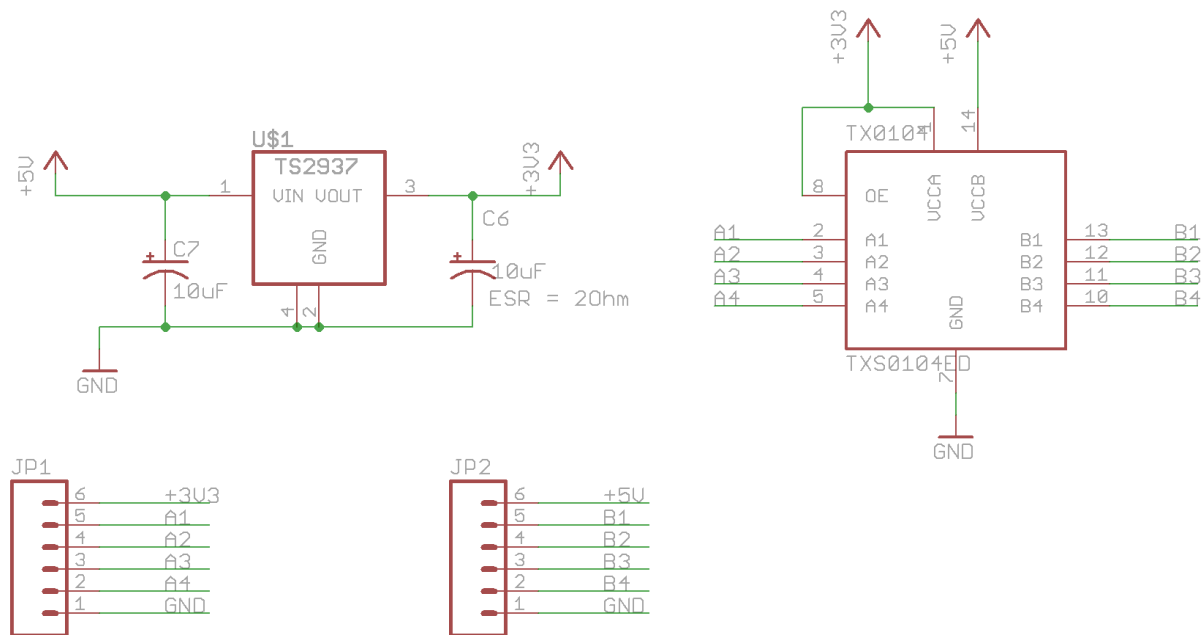
Power

The MOD-1003 can be powered from 4V – 5V.

Usage

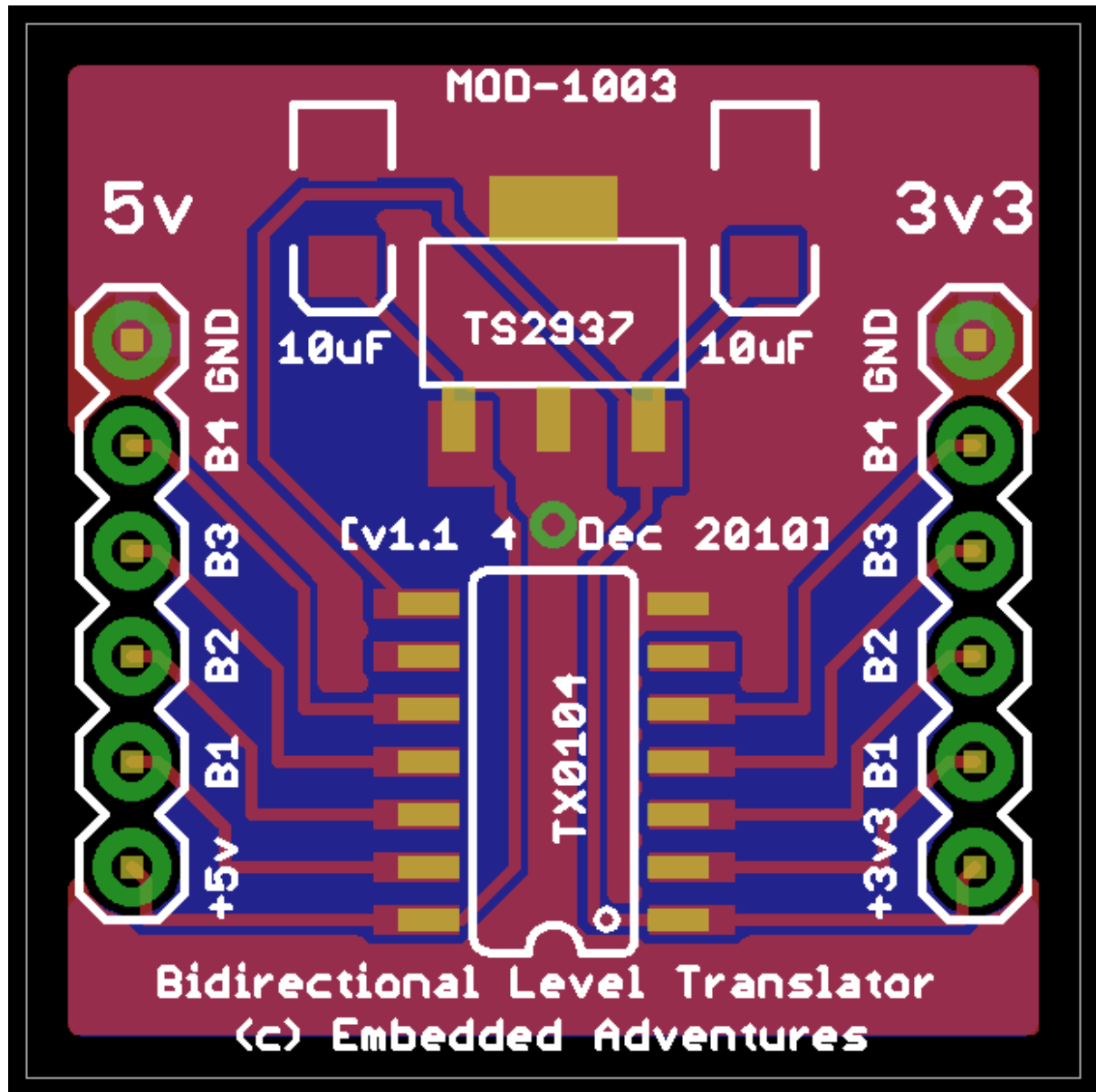
It's simple! Just power it with 5v, power your 3v3 device with the 3v3 connection, and connect your 5v I/O to the B pins and your 3.3v I/O to the A pins. You don't even need to worry about which direction the signal is going, the TX0104 will work it out and provide either 5v to 3.3v conversion or 3.3v to 5v conversion as necessary.

Schematic



The MOD-1003 has enough circuitry to support the TX0104 along with a low-dropout voltage regulator (TS2937).

PCB



Versions

Version	Date	Comments
Version 1.0	8 Feb 2011	Initial Version for board v1.1