

8 CHANNEL BI-DIRECTIONAL LOGIC LEVEL CONVERTER

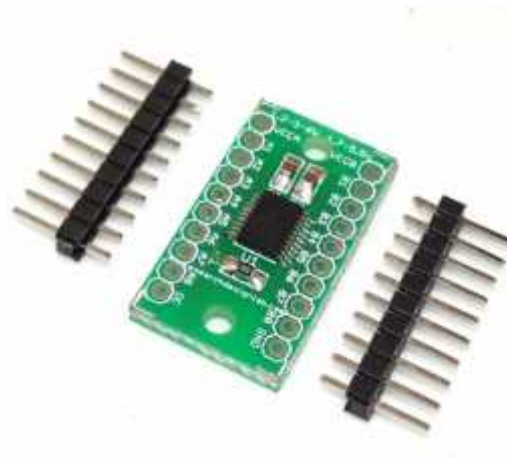
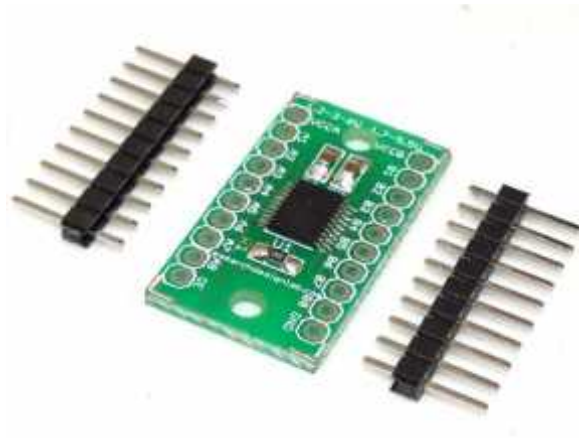


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OVERVIEW

INTRODUCTION



Because the Arduino (and Basic Stamp) are 5V devices, and most modern sensors, displays, flash cards and modules are 3.3V-only, many makers find that they need to perform level shifting/conversion to protect the 3.3V device from 5V. This 8-bit non inverting translator uses two separate configurable power-supply rails. The A port is designed to track VCCA. VCCA accepts any supply voltage from 1.2 V to 3.6 V. The B port is designed to track VCCB. VCCB accepts any supply voltage from 1.65 V to 5.5 V. This allows for universal low-voltage bidirectional translation between any of the 1.2-V, 1.5-V, 1.8-V, 2.5-V, 3.3-V, and 5-V voltage nodes. VCCA should not exceed VCCB.

FEATURES

- 1.2 V to 3.6 V on A Port and 1.65 to 5.5 V on B Port ($V_{CCA} \leq V_{CCB}$).
- VCC Isolation Feature – If Either VCC Input Is at GND, All Outputs Are in the High-Impedance State.
- OE Input Circuit Referenced to VCCA.
- Low Power Consumption, 4-mA Max ICC.
- Ioff Supports Partial-Power-Down Mode Operation.
- High quality PCB FR4 Grade with FPT Certified.

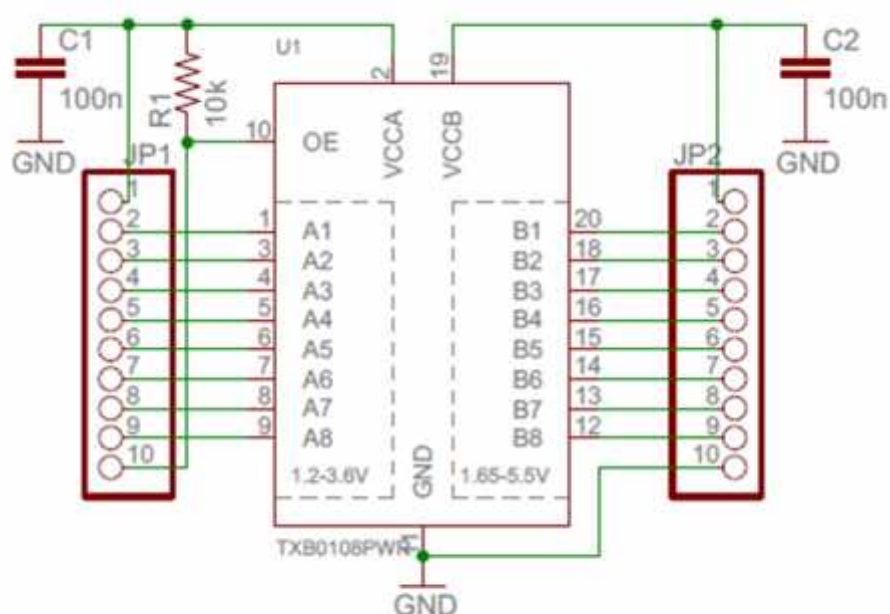
APPLICATIONS

- Handset
- Smartphone
- Tablet
- Desktop PC

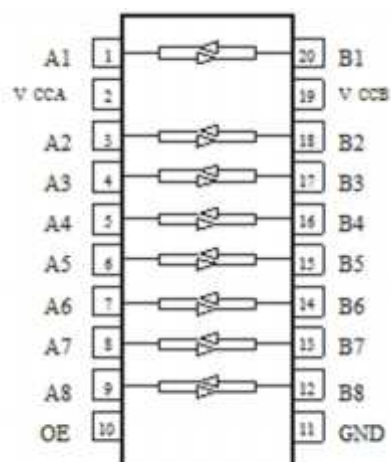
TXB0108IC



CIRCUIT DIAGRAM



PIN DESCRIPTION



NAME	FUNCTION
A1	Input/output 1. Referenced to VCCA
VCCA	A-port supply voltage. $1.1\text{ V} \leq VCCA \leq 3.6\text{ V}$, $VCCA \leq VCCB$.
A2	Input/output 2. Referenced to VCCA.
A3	Input/output 3. Referenced to VCCA.
A4	Input/output 4. Referenced to VCCA.
A5	Input/output 5. Referenced to VCCA.
A6	Input/output 6. Referenced to VCCA.
A7	Input/output 7. Referenced to VCCA.
A8	Input/output 8. Referenced to VCCA.
OE	Output enable. Pull OE low to place all outputs in 3-state mode. Referenced to VCCA.
GND	Ground
B8	Input/output 8. Referenced to VCCB.
B7	Input/output 7. Referenced to VCCB.
B6	Referenced to VCCB.
B5	Input/output 5. Referenced to VCCB.

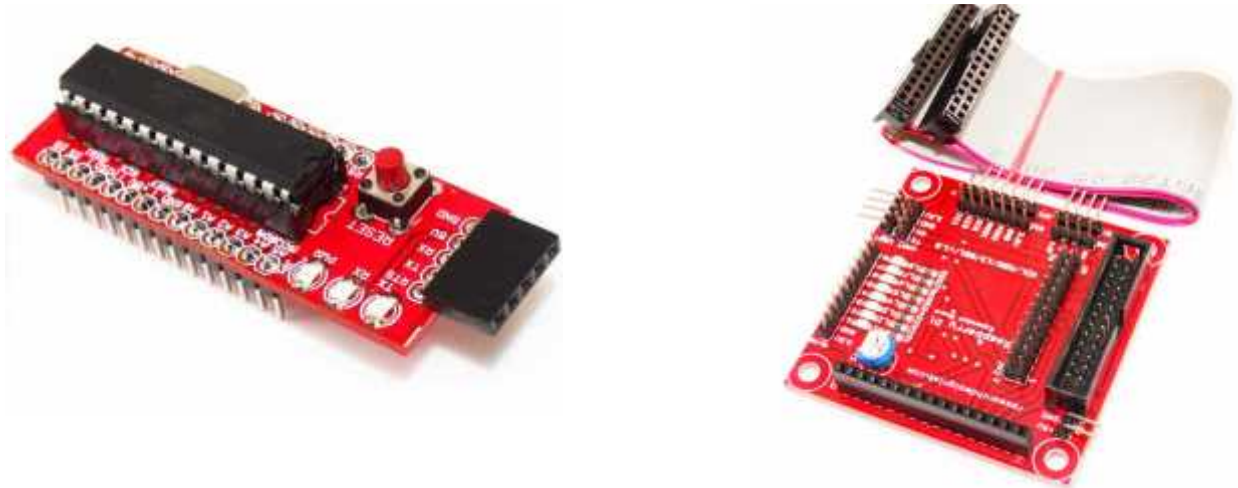
B4	Input/output 4. Referenced to VCCB.
B3	Input/output 3. Referenced to VCCB.
B2	Input/output 2. Referenced to VCCB.
VCCB	B-port supply voltage. $1.65\text{ V} \leq \text{VCCB} \leq 5.5\text{V}$.
B1	Input/output 1. Referenced to VCCB.

NOTE: TXB0108 should not be used in applications such as I2C or 1-wire where an open drain driver is connected on the Bi-directional data I/O

RELATED PRODUCTS

DIY UNO Play Breadboard -ATMEGA328P

Expansion Board Compatible for
Raspberry Pi



RDL- UNO ATMEGA328 Development Board 3 in 1(= Uno+Memory Shield+Xbee Shield)
- Programmed with Arduino

