## ET-10PIN CONV 3/5

CONNECTOR "ET-10PIN CONV 3/5" is a device to convert level of Signal LOGIC from 3V to 5V or from 5V to 3V. It has the specification of Bidirectional, so it can interface with Port INPUT or Port OUTPUT that has different level; in this case, there are 8 I/O Channels. The main objective of this device is to be used with MCU 3.3V for driving or receiving Load at 5V. All 8 channels of this module can be used in 2 formats that are INPUT or OUTPUT. User has to choose only one format; it cannot use both INPUT and OUTPUT simultaneously. Now, we will describe how to use this device.

1.) **Convert Logic level from 5V to 3V**: It has to set Jumper to the position of B/A; Port on the side of Logic (B) interfaces with +5V(PIN9) and GND(PIN10); and PIN 1-8 is used to receive external Signal that is Logic level 5V. Next, the signal is sent to the side of Logic (A) at Pin 1-8 that is Logic Level 3V to drive LOAD 3V-3.3V or interface with Pin INPUT of MCU 3.3V.



**5V to 3V**
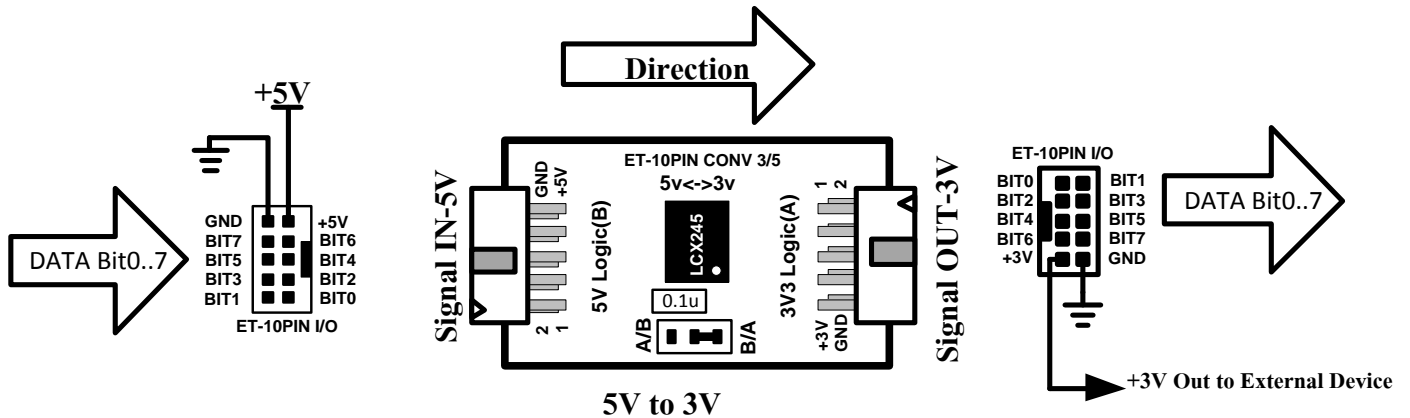
2.) **Convert Logic from 3V to 5V**: It has to set Jumper to the position of A/B; Port on the side of Logic (B) interfaces with +5V(PIN9) and GND(PIN10); and PIN1-8 is Signal Output Level 5V that has been sent from the side of Logic (A) to drive LOAD 5V or interface with Pin INPUT of MCU 5V. On the side of Logic (A), Pin 1-8 is used to receive external Signal that is Logic level 3V-3.3V to convert into Level 5V.



**3V to 5V**

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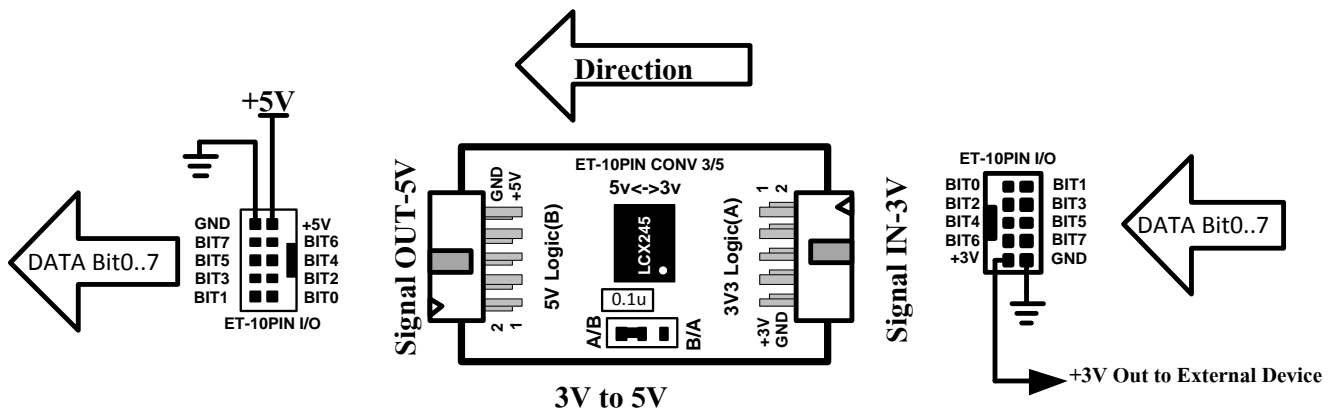
**NOTE**: On the side of Logic (B), it always uses PIN +5V and GND to be Power Supply for board. On the side of Logic (A), Pin +3V and GND is used to be Pin OUTPUT for supplying 3V or 3.3V external device that has not been interfaced with other Power Supply yet. If 3.3V external device has already interfaced with Power Supply, it is unnecessary to interface with this Pin +3V; it only interfaces with Pin GND and Pin DATA.