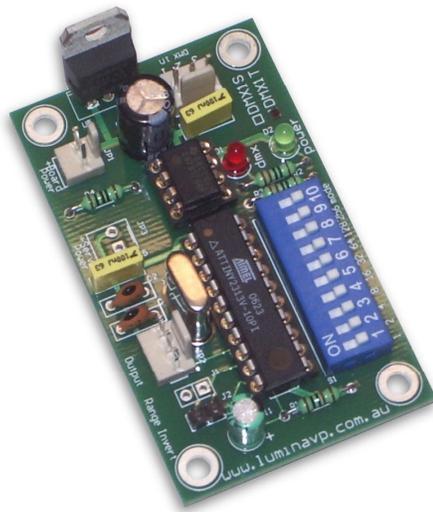


DMX01T

DMX512 – single channel DMX to TTL

User's Manual

Rev 1.0



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APPLICATION

The DMX01T provides a compact and simple means for the conversion of a DMX512 stream to a single TTL output. The DMX01T provides for two modes of operation:

1. Fail-safe mode: If loss of DMX512 is detected, all outputs will fail to their 'off state', until DMX512 is restored.
2. Fail-hold mode: If loss of DMX512 is detected, all outputs will hold their previous state.

If being used as part of a laser show setup, it may be desirable to use the DMX01T in Fail-safe mode. The detection window for loss of DMX512 is approximately 150ms. This was set at 150ms to allow for a wider variety of DMX512 controllers to be used. If your application requires a shorter detection window, we can re-flash the microprocessor to provide for this.

The DMX01T ships to recognize a start code of '0' as being valid. If you wish to use this device with a start code of something other than '0', please advise us as we can also re-flash the microprocessor to provide for this.

CONNECTIONS

The DMX01T has 3 headers for interfacing to your equipment. These are as follows:

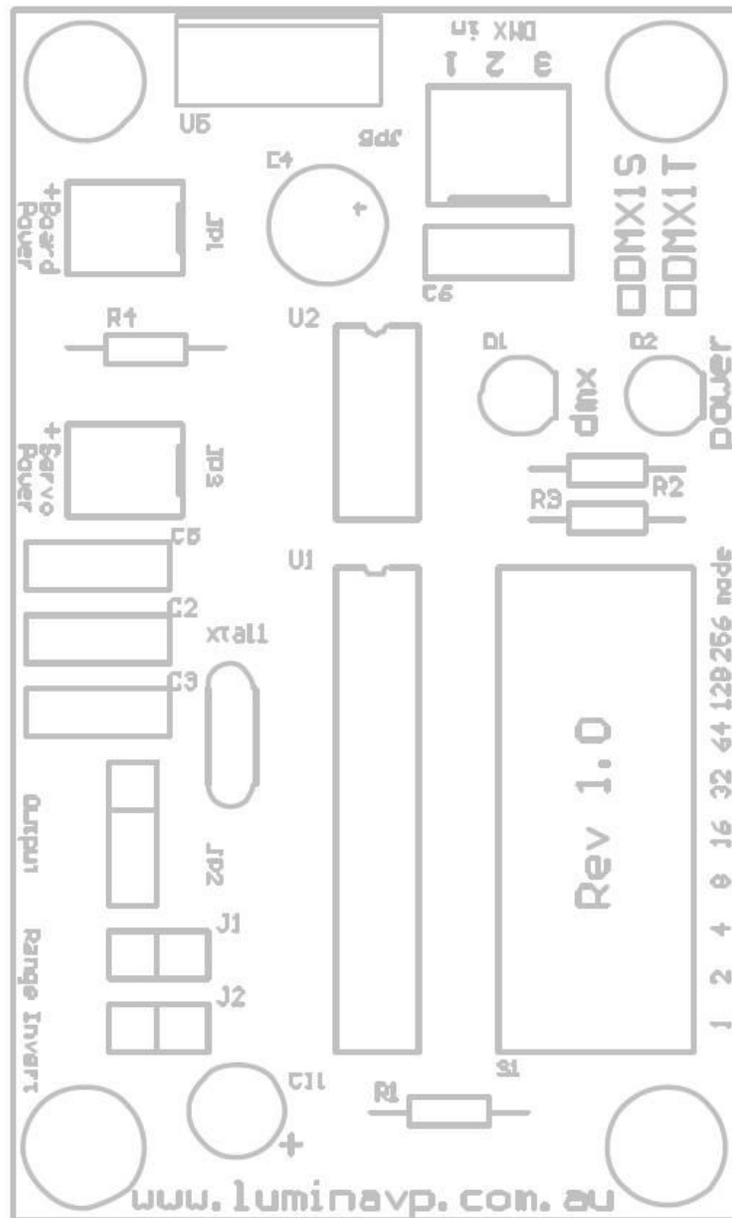
DMX512 input

DMX board
power input 7-
15vdc

TTL output
jack

1
2
3

Invert jumper



Power Input:

The DMX01T power input is via a 2 pin socket. Power requirements are 7-15VDC at 100ma.

Pin 1: Ground

Pin 2: +ve (marked with a (+) on the board)

DMX512 In

The DMX01T receives DMX512 via this header. It is wired as follows:

Pin 1: Ground

Pin 2: Cold (Signal -ve)

Pin 3: Hot (Signal +ve)

This connector shares the same pin out as the DMX512 jack for easy reference.

TTL output:

The DMX01T has one TTL output via the pin out described below. The output is capable of sinking 20ma and sourcing 5ma. If more current is required, a buffer transistor should be used, or the DMX01R could be used.

Pin 1: Ground

Pin 2: NC

Pin 3: TTL output

INDICATORS

The DMX01T provides two LED indicators that highlight normal operation:

Green (Board power): This LED lights to indicate the board has power.

Red (DMX State): This LED indicates the state of the DMX input.

- With no DMX present, the LED flashes about once per second.
- When the board is receiving valid DMX packets, the LED flashes at a much faster rate, many times per second.
- The LED will stay on whilst data is updating on channels within the range set by the DIP switches

If a valid DMX512 stream is not sensed after a period of $\sim 150\text{ms}$, the LED will revert to a slow 1 second flash, and the device will fail to the mode set by DIP Switch 10.

DIP SWITCHES/JUMPERS

Channel & Fail mode Select

10 DIP switches are provided to adjust settings. Switches 1 through 9 are used to set the offset/starting DMX512 address. Switch 10 is used to set the fail-mode. With the switch set to the on position, the board will be in fail safe mode, and loss of DMX will drop all outputs to the off state.

Note: Switch 1 has no effect unless it is used in conjunction with other switches. Ie, if switches 2 through 9 are off, the DMX01T will receive on channel 1 regardless of the position of switch 1.

Invert Jumper

The invert jumper effectively inverts the output of the board.