XTBA DMX1 DECODER/SWITCH

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XTBA DMX1 DECODER/SWITCH

The **DMX1 Decoder/Switch** is a single channel DMX512 decoder, 0 to +10 volts and switch driver for solid state relays. The single board unit provides a simple and low cost solution to DMX interfacing and only requires an external transformer or power supply and XLRs.

In addition to the DMX to analogue decoding the switch driver output allows the DMX1 decoder to be used with fluorescent ballasts powered through a solid state relay. Many fluorescent ballasts will not dim to zero (or stick at 10% with no analogue input) so by powering the ballast with a solid state relay driven from the DMX1 decoder's relay output the ballast can be turned off when the level falls below 10%.

Operation
In use the red led will be lit to show power and the microcontroller are running. The green data led will light if valid data is being received. If the address switches are set beyond 512 or 000 the green data led will flash. If data is lost the green led will turn off after 2 seconds and the analogue output will be maintained, or the output set to zero dependant on the setting of LK1. In single channel mode the switch output will turn on at DMX 11% and off at DMX 9%. This allows the unit to be used with analogue systems or assigned to control submasters.

Use with Fluorescent Ballasts
The DMX1 Decoder can source or sink voltage. When connected to dimmers, motor controllers etc the unit will source voltage. Fluorescent ballasts require the unit to sink voltage as the ballasts have a pull up resistor. A maximum of four ballasts can be connected to the output of the DMX1. Beyond this the fixtures will not dim down correctly.

Link Settings - factory setting is single channel, lose last frame.
The DMX1 card has two link settings - marked on the PCB.
If Link 1 is set to the B position on loss of DMX the output will clear to zero.
If Link 1 is set to the A position the last valid level will be maintained on loss of data.

Link 2 allows the card to be used in either one or two channel mode.
If Link 2 is set to the A position the card will run in two channel mode. The first channel (set from the address switches) will control the analogue out voltage and the following channel will control the relay drive. In this mode the relay drive on level is set to 51%+ on 48% - off.

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If Link 2 is set to the B position the card will run in single channel mode with a 11%+ on level and a 8% - off level.

Technical Specifications

Maximum Update Rate:	44 updates/s
Maximum number of channels:	512
Output voltage:	0V to +10V DC
Maximum current:	100µa
Switch Output	5V/30ma maximum
Hold last frame:	LK1 (A = Yes, B = No)
Dual Channel Mode	LK2 A = DMX Address + 1 greater than 50%
Single Channel Mode	LK2 B = DMX Address greater than 10%
Low voltage AC:	9-0-9V 6VA or Low voltage DC:9 - 12V 35mA
Dimensions	74mm x 43mm x 25mm – clearance height

PIN	FUNCTION (PL1)
1	Data Screen XLR Pin 1
2	DMX –ve XLR Pin 2
3	DMX +ve XLR Pin 3
4	Analogue 0V
5	Analogue Out
6	0V AC
7	9V AC
8	9V AC

For DC Supply Pin 6 = 0V, Pin 7= +V and Pin 8 = not connected.

PIN	FUNCTION (PL2)
1	0v
2	Switch Output +5V

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