

24 Channel USB LED Controller

Description:

Controls 24 channels of LEDs with PWM.
Capable of controlling multiple sizes, shapes configurations, voltage, wattage of LEDs.
Outputs can be configured to sink or source.
Easy to configure using jumpers. Each channel can handle upto 1A of current or 2.5w of dissipation.

USB compatible, use the supplied programs or create your own. Various Microchip Solution's can be utilized using this board.

Features:

- 24 high-current channels
- Upto 1A per channel or 2.5w dissipation.
- Output voltage configurable, 5v - 36v.
- Outputs configurable to sink or source.
- Sections can be configured independatly, easily multiplex for more channels.
- Multiple configurations of LEDs, with varios voltages, wattage, and types.
- Fast switching speed, for PWM.
- USB Connectivity

This is designed to be mostly a development board for controlling LEDs, various programs will be written for it and will be available through the website.

Specification:

Input	5v*
Current	varies
Output	24 channels, various voltage/curent
Connectors	Screw Terminals
Dimension	3.5" x 3" x 1"

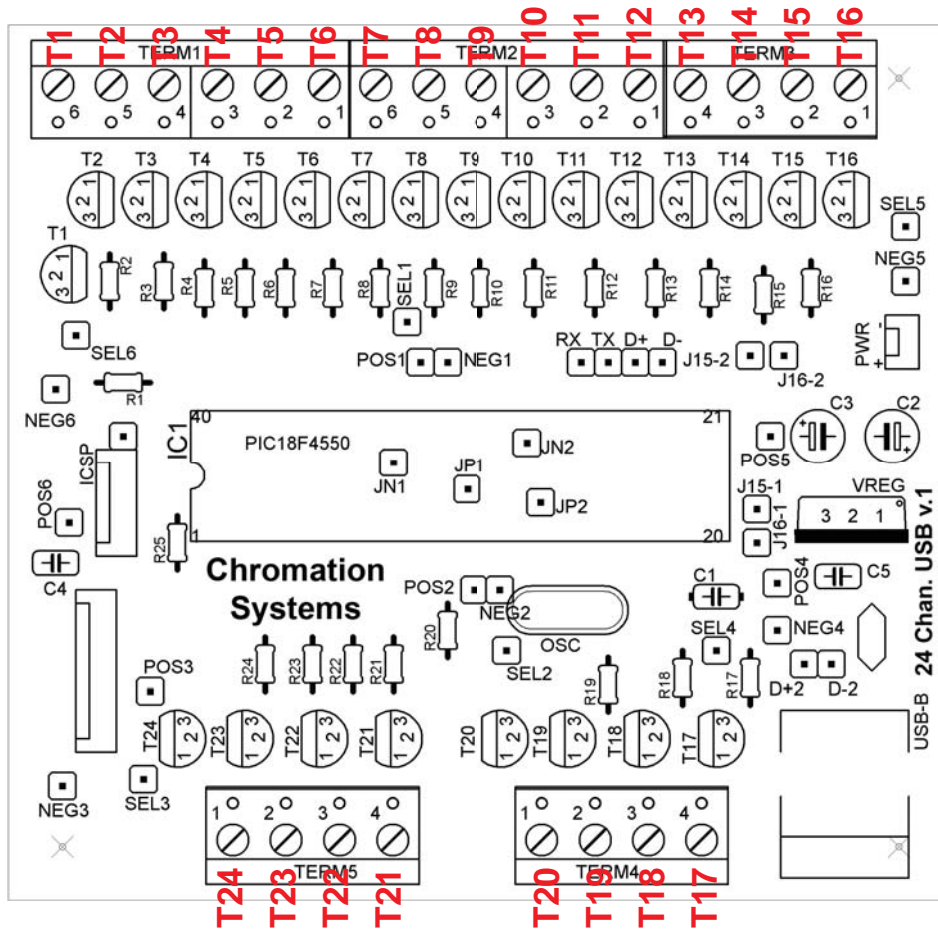
*Input voltage fro the controller is 5v but other voltages can be used with the LEDs.

For Updated Information and Building Instruction visit www.Chromationsystems.com or E-Mail Support@Chromationsystems.com

Datasheet V.1



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Parts List:

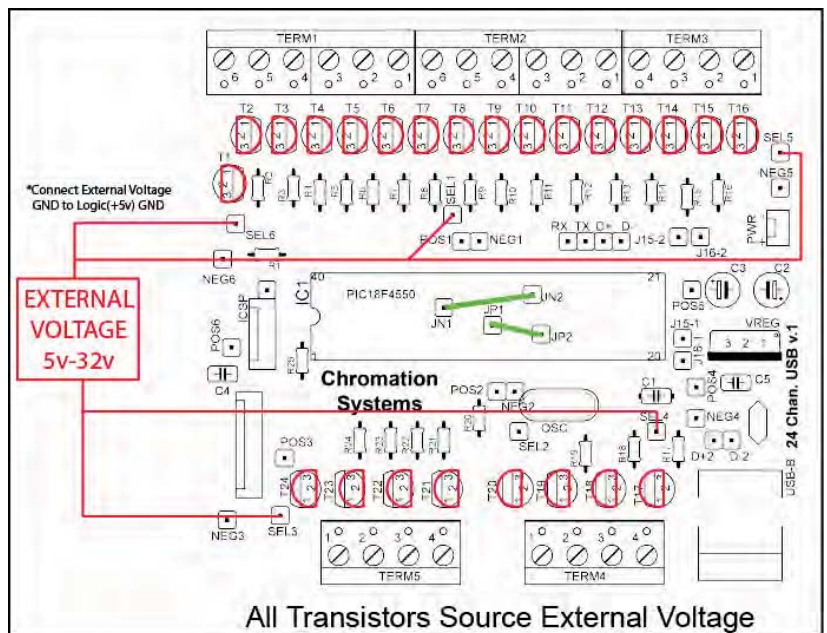
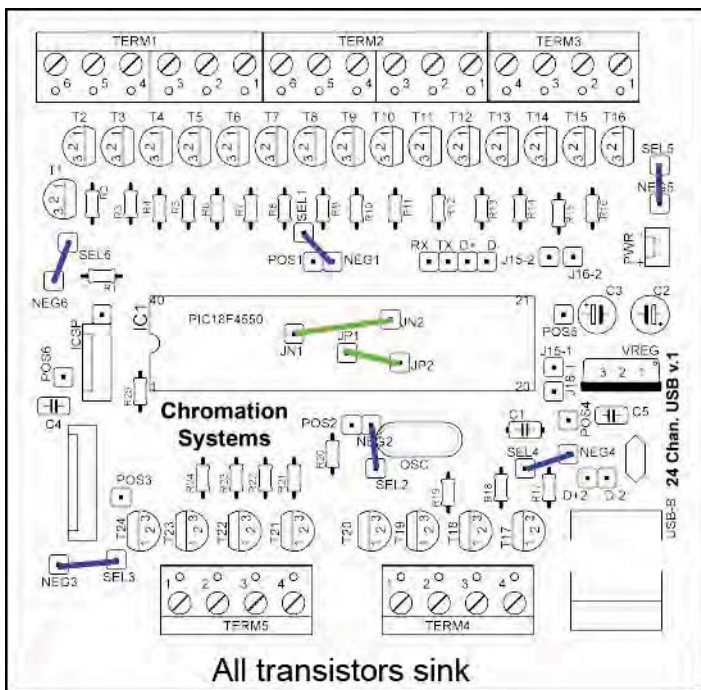
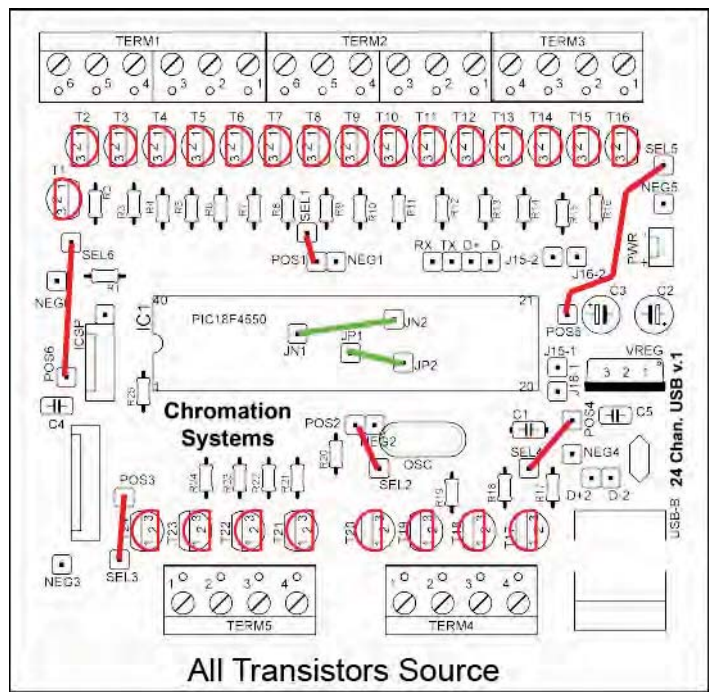
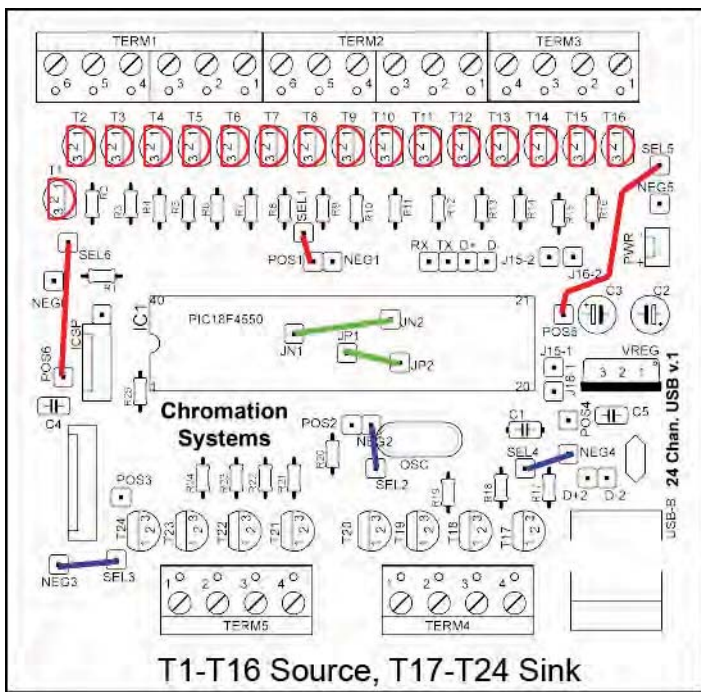
R1 -	VREG	7805*
R24 220 ohm	IC1	18F4550
R25 10 kohm	OSC	20mhz Series
C1 220 nF	PTC	Fuse*
C2 1 uF	USB-B	USB Type-B Jack
C3 1 uF		
C4 0.1 uF		
C5 0.1 uF		

*Parts are optional, the 7805 needs a good heatsink. the PTC fuse is not needed, as no current should be drawn

T1-T24 are MPSW45AG or similar, their orientation differs depending on output configuration.

Jumper Configurations:

Jumpers are configured in various ways to allow the outputs more versatility. The board is divided into 2 sections, one with 16 outputs the other with 8 outputs. Each side can be configured independatly from the other, setting the jumpers in various ways allows for the following configurations.



LED Configurations:

Example LED Configuration Options:

