CGS763 Power Supply Delay Module

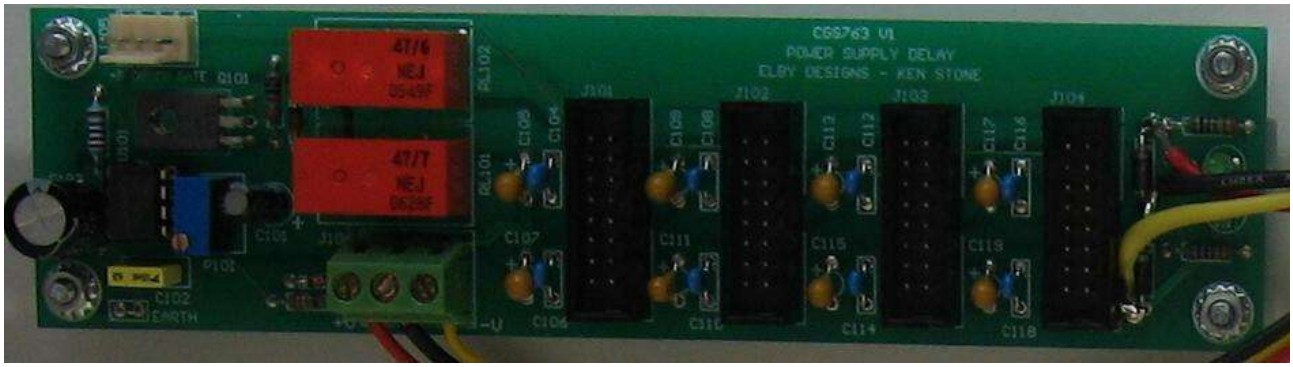

Figure 1: CGS763 Module (prototype shown) (3D Model)

Construction

Construction of the CGS763 is very straightforward and constructors should simply follow the Bill of Materials and Component Overlay.

Once constructed the only adjustment is an optional one to adjust the time delay before the relays are activated. This adjustment is only needed if

1. the main supply itself has a relatively slow rise time and a longer time delay is required to ensure that all the power rails are up to their optimum levels, or
2. there are more than one CGS763 modules in the system and it is desired that they all have different time-on delays.

LEDs are provided for mounting directly on to the PCB but may be replaced with panel mounts if visual indication of the switched outputs is desired.

Installing

The PCB has 6 mounting points and they all should be used when installing this module to prevent the PCB bending when inserting and removing power connectors.

+/-12V power is fed in to the board through the 3-way connector at the bottom left of the pcb in Figure 1. A 4-way connector is provided at the top left of the pcb for applications requiring CV, GATE and/or 5V facilities on the power connectors (only the 5V line is switched while the signals simply pass directly to the relevant pins on the headers).

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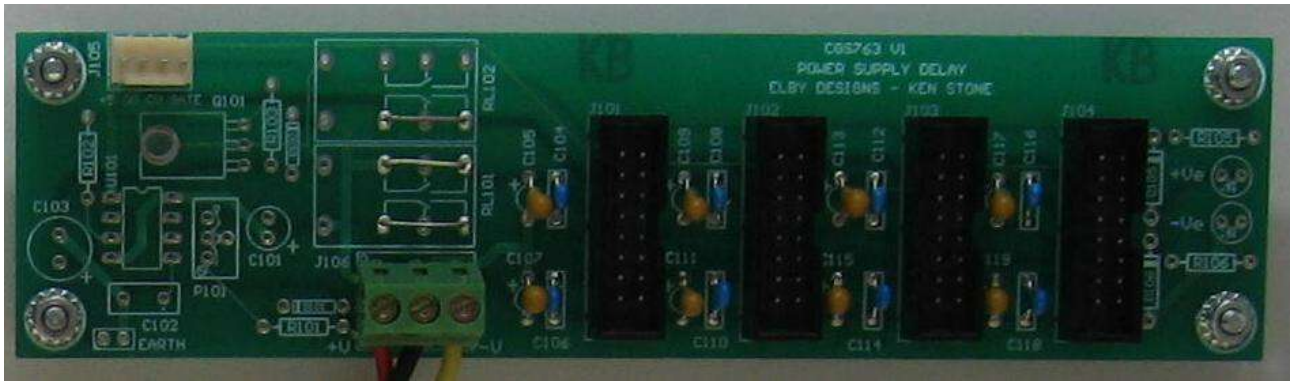

Figure 2: CGS763 Lite (prototype shown)

If you require more than 4 power outlets in a small system, then you can build a LITE version of the CGS763 that only has the power connectors fitted. Power to this module can be taken directly from the main power supply if no time-delay is required or can be taken from the 3-way connector at the right of the main pcb in Figure 1 if you require to expand the number of `delayed' power outlets.

Wire links need to be fitted in place of the relays as shown in Figure 2

Power Cable Warning

Please note that the CGS763 is supplied with BOXED headers and users must double-check any power cables used that other than Panther Power Cables. Although there is an industry standard that has pin 1 of the headers marked and that this is usually always the marked side of the cable (usually a red stripe), there is no guarantee that 3rd-party power cables have the IDC Socket correctly orientated and it is possible for a 3rd-party cable to have the red stripe at the opposite end of the IDC socket (as long as this is true for both ends then the cable can be used in systems that have open headers). All power cables SHOULD have the red stripe of the cable at the pin 1 end of the IDC socket (this is usually marked on the IDC Socket moulding with a triangle or the number 1).

It is the users responsibility to ENSURE that the power cables are connected the correct way otherwise there is a high risk of damage occurring to the attached module. With the module orientated as in the photographs, the –12V pin is at the BOTTOM of the connector and for a correctly terminated power cable this is also pin1 of the IDC Socket..

Earthing

There is a wire link in the lower left corner of the PCB that has been installed and provides a connection from the power supply 0V circuit to chassis ground. If you experience earth loop hums after installing this module or have provided the necessary safety earth connection elsewhere in your system, then you should cut this link.