

Portabellabz Sequential Voltage Source Doubler for 208

BOM and buildnotes

Diodes

15 x 1N4148
5 x 3mm LED

ICs

2 x TL074
1 x TL072

Resistors

5 x SOT for the LED brightness
2 x 10
5 x 4k7
7 x 10k
3 x 120k

Pots

2 x 10k 3266Y multiturn trimmers
5 x 50k lin 9mm snap-in
1 x 1M log 9mm snap-in

Capacitors

5 x 10nF multilayer ceramic
4 x 100nF multilayer ceramic
1 x 680nF film
2 x 22µF electrolytic

Hardware

2 x DIL14 socket
1 x DIL8 socket
6 x on-off-on SPDT toggle switches
2 x mini slide switches <https://www.taydaelectronics.com/electromechanical/switches-key-pad/slide-switch/mini-slide-switch-1p2t-through-hole-0-2a-24vdc.html>
1 x red banana
1 x blue banana
2 x purple banana
1 x black banana
4 x 12mm M3 FF standoffs
4 x 5mm M3 MF standoffs
8 x 5mm M3 screws
2 x 16mm M3 screws
1 x LW-N28A2G edge connector

Place the blue banana socket with a flat side pointing to the TL074 otherwise it won't fit.

Bridge the "stage 5" pads if the card will be used with a 208p, 208r or early 208e. Don't bridge them if the card will be used with a late 208e or 208c (the 5th stage out to the card slot is disabled by design on these and replaced by a permanent +10V signal which upsets the card operation).

You can install an angled pin header and a jumper instead of a permanent bridge to change this easily.