**C64 PSU Global Rev. 1**

**Functional Description**

J1 is the mains connector of the board. Up to 240V can be connected. Two types of transformers fit alternatively. TR2 is for 230V only, TR1 can be switched between 230V and 115V. In this case J2 has to be populated. The wiring and connections are shown in the schematics.

M1 and M2 are AC/DC modules, which provide +5V. Both modules can be populated alternatively. The criteria for choosing one of these is availability and price. The function is identical in this case.

F1 is the fuse for the 9VAC. D1 serves as an over-voltage protection.

F2 is the fuse for +5V. C1 and C2 are for smoothing the voltage, D2 is a minimal over-voltage protection. It is equivalent to the TVS diodes, which are sometimes retrofitted in the C64.

JP1 is for connecting an external (and hopefully more precise) over-voltage protection (aka “Saver”). This saver is not yet developed. In case no saver is installed, JP1 should be bridged.

J4 is for connecting a panel volt-meter.

J6 is for connecting a power LED. The value of R1 is calculated for installing a blue LED. For a red or green LED, 330R or 390R are recommended. The illuminated logo already has limiting resistors on board. In case this logo is used as a power indicator, R1 needs to be 0Ω or can be bridged with a piece of wire.