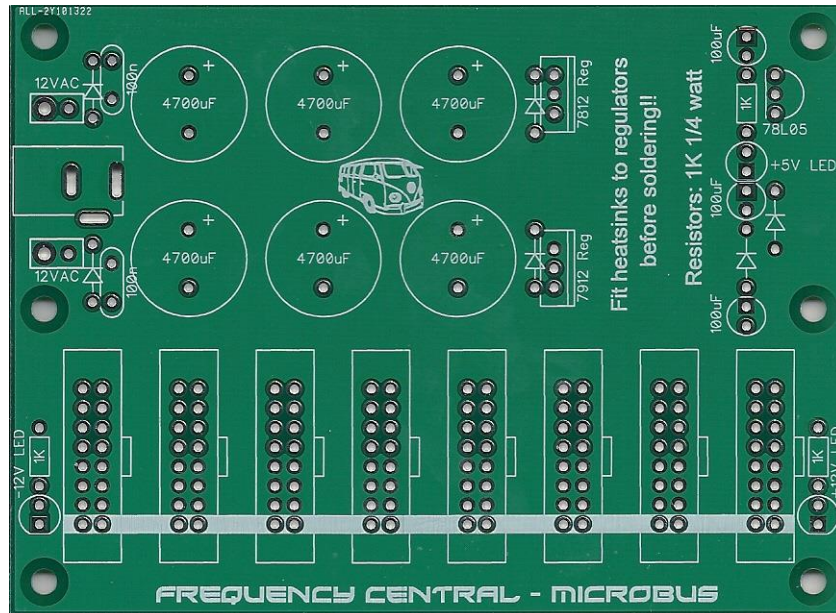


Build documentation for:

# MICROBUS

## FREQUENCY CENTRAL



**Microbus** has been designed as an inexpensive solution for small Euro systems. It uses easily available parts, all of which you can source from Tayda for less than £5.00 GBP.

I recommend a [1000mA 12VAC wallwart](#) for best results. This should give you ~500mA at +/- 12V and 100mA at +5V. Alternatively, you can get +/-15V by replacing the 7812 and 7912 with 7815 and 7915.

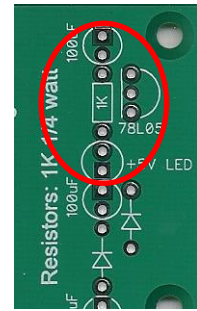
**Please note that Microbus will NOT work from a DC wallwart.**

3mm red LEDs indicate the status of each power rail. Polarity and short circuit protection is built in.

If you do not choose to use an onboard power input socket, I'd recommend [this type](#) of power input, which will isolate from any metalwork of your enclosure, additional strain relief holes are provided for offboard wiring:



If you don't need +5V you can leave out the 4 components associated with this, highlighted in red in the image to the right. The 4 unused components are: 100uF capacitor, 1K resistor, 78L05 and 3mm red LED.

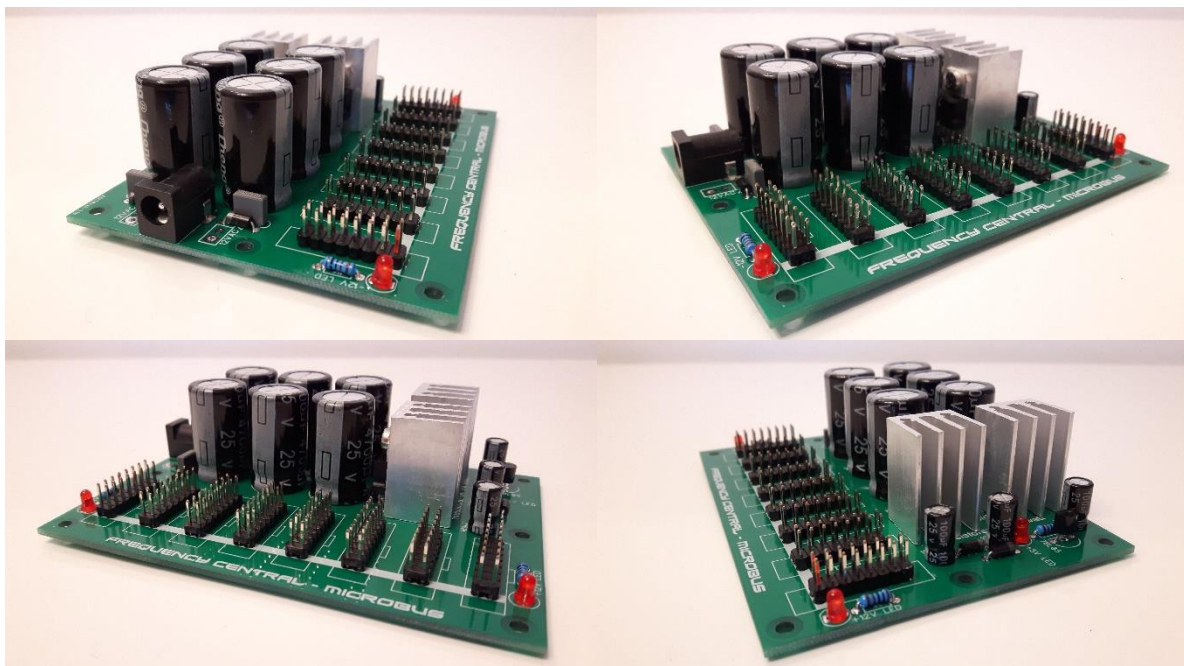


### Bill of materials

<a href="#">1K</a> x 3	<a href="#">100nF</a> x 2 <a href="#">100uF 35V</a> x 3 <a href="#">4700uF 25V</a> x 6	<a href="#">7812</a> x 1 <a href="#">7912</a> x 1 <a href="#">78L05</a> x 1 <a href="#">1N4004</a> x 6 <a href="#">3mm red LED</a> x 3	<a href="#">Heatsink</a> x 2 <a href="#">Power header</a> x 2 (cut to size) <a href="#">Power input socket</a> M3 bolt x 2
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Please observe the correct polarity for all voltage regulators, diodes and electrolytic capacitors:

- 4700uF caps polarity are indicated by a + next to the +ve pad.
- 100uF caps polarity are indicated by a square pad for +ve.
- [1N4004](#) polarity are clearly shown on the PCB.
- 3mm red LEDs polarity are indicated by a square [cathode](#) pad.
- ...see photos for 7812, 7912 and 78L05.



RDH 17/03/18