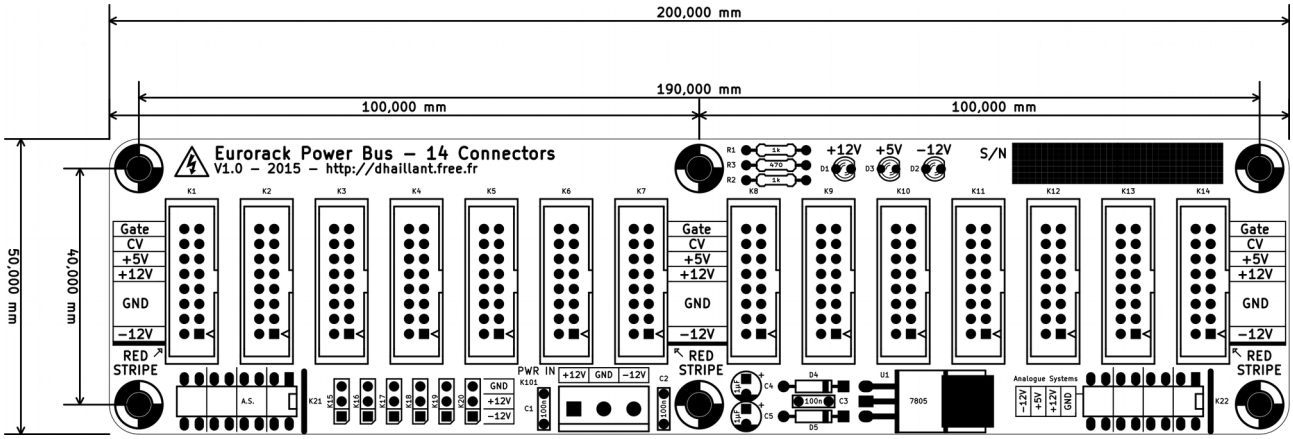
Eurorack Power Bus

(V1.0 20160121)

Bill of material

Designation	Qty	Reference
HE10 16-pin male connector	14	K1 to K14
Screw Terminal 3-pin	1	K101
Pin Array 3-pin	6	K15 to K20
DIP 16-pin	2	K21, K22
LED 3mm	3	D1, D2, D3
1 A diode 1N4007	2	D4, D5
470 Ohm 1/4W Resistor	1	R3
1k Ohm 1/4W Resistor	2	R1, R2
100 nF MKS or MKT	3	C1, C2, C3
1 µF 50 V 2.5mm	2	C4, C5
7805 linear 5 V regulator	1	U1

Layout and dimensions



Use 3 mm screws and spacers. U1 can be bolted or soldered.
If you don't need the « 1U tile » connectors K15 to K20, you can safely avoid them. Those connectors are unshrouded and potentially expose rails to shortcuts.
Double check every solder, every component's polarity before powering your bus.
LEDs D1 to D3 are useful for power presence signalisation. They don't prevent from reverse polarity, undervoltage or overvoltage. Obviously, they need to be correctly installed. If the LEDs don't light instantly at first power up, turn off power immediately and check everything again.

There's no complete reverse polarity protection : please, be sure to correctly power in the bus on K101. If you plug in -12 V in the +12 V rail, protection diodes D4 and D5 will shortcut. If shortcut current is greater than 1 A, diodes may burn.
Use only a fuse-protected power supply!
Best practice is to put your power distribution boards in a star configuration.

Any question or problem? Please contact me:
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