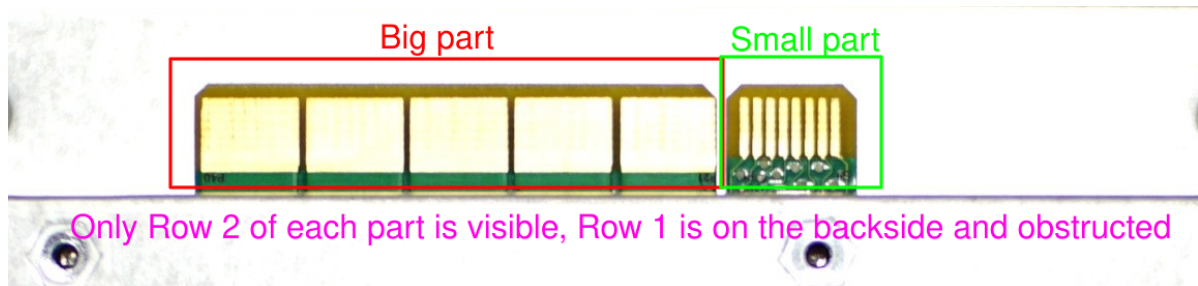


PSU Pinout's for ThinkStation P500(and others i guess)

11. Mai 2022

DISCLAIMER:

I take no responsibility if you assume everything here is correct because it most likely is not. Don't mess around with power supplies unless you know what you are doing. I am not responsible for any damages. Better blame Lenovo for not making it's proprietary connectors specification public. I am not guaranteeing you that anything on this page is correct



1 Small Part:

	001	002	003	004	005	006	007	008
1	GROUND	-12	GROUND	GND	12V	5V		
2	5V	5V	GROUND	0.5	0	0.2	1V	

1.1 Row 1:

Pin 3,7 enable when the PSU is enabled/burned(more on that later). Don't short Pin 7 & 8, it might fry internal components even when off, i think i smelt electronic smoke when i shorted them

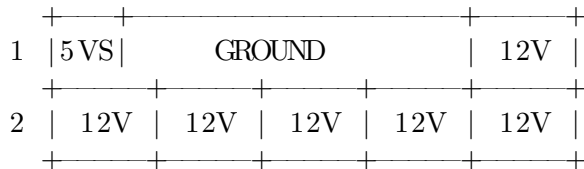
1.2 Row 2:

Pin 1 switched to 0.5 after shorting to ground and enabling/burning the PSU, Pin 2 is always on, Pin 5,7,8 only turned on after enabling it. Shorting Pin 1 to GND

enabled the PSU or it burned a Component that is now enabled by default, i am not sure about that so only do it with a spare PSU

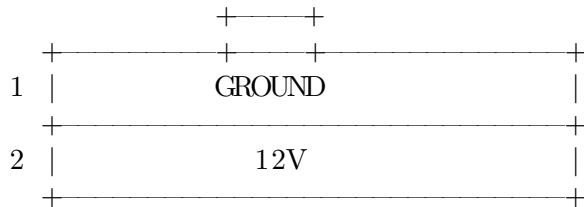
2 Big Part:

Don't short 5VS and GND



5VS seems to be always enabled and carries much power. All the 12V lines only enable once the PSU gets the right signal to start.

3 Proprietary PCIe Power Connector:



All Pins in the top row seem to be Ground and all in the bottom on are 12V

Attention:

Those are all measured values, many of the ground Pins are different from real Ground. Considering that i couldn't fully figure out what enables the PSU exactly, i can't come up with an adapter for standard ATX PSUs. I think it is possible though as most pins are either 12V only and the activation process. But as it seems like it is like shorting the green cable on standart ATX PSU's it might be relatively easy to put a adapter together(unless Lenovo copyright strike it). Also i don't know what many of those Values below 5V actually do.

Getting a Lenovo ThinkStation motherboard to work with a standard ATX PSU seems possible when someone bothers creating a proper adapter(ignoring all the weird Values).

Creating an adapter for using those PSUs for default ATX motherboards seems unfeasable though as this seems like to be a proprietary 12V only PSU and it is missing the 3.3 voltage lines