

Re: USB 5volt power

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- *From:* "petrus bitbyter" <pieterkraltlaatditweg@xxxxxxxxxxxxxxxxxxxxx>
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"ArameFarpado" <a-farpado.spam@xxxxxxxxxxx> schreef in bericht
news:44e24365_2@xxxxxxxxxxxxxxxxxxxxx

John wrote:

Hi, thanks for you reply

There are 2 per-port limits on the power available from a USB port. One limit for devices that don't tell the USB controller how much power they need and another limit for devices that do specify their loading. If a device draws more than the first limit and does not tell the controller, you may encounter problems. If a device specifies it's current requirements but exceeds that specification, you may encounter problems.

There is also a maximum total current limit for the particular USB controller being used. If that total current limit is exceeded, the chip will (usually) shut down. This sounds like the problem you are describing. There are two solutions – connect fewer devices at one time (example: printer and scanner not usually in use simultaneously) or add an external powered hub.

John

This problem appens with a usb-adsl modem, the modem have been replaced 2 times (3rd modem allready) and did not solve the problem, the adsl connection is a high-speed and the power goes down when the modem starts to work harder like when doing a download... it appens with just the modem connected.

So, do you think that connecting the modem with a diferent 5volt supply and disconnecting the 5volt supplied by the controller is a bad idea ?

Thanks

Re: USB 5volt power

ArameFarpado

According to the specifications a USB-device can use up to 100mA when connected and up to 500mA after negotiation... When the host can provide it. If not or when the device exceeds the agreed current, the host may shut down the link.

On the low side some hosts can provide only 100mA, so they can power only one one or more low power devices as long as they together use less then 100mA. Notebooks, some Toshiba's for instance, are known for it. On the high side I ever got a MB which had it's 5V directly connected to the 5V pin of the USB port. Even no fuse!

As far as a host is concerned it does not need to power a USB device. Printers, scanners and the like often have their own power supply. I have a USB-hub that can be powered via the host or externally. Originally the choice has to be made by a switch, but that switch was replaced by a 1N5819 Schottky diode.

USB-ADSL modems are too well known for their poor performance. Some of them work flawlessly for years but a big bunch of them did not and was replaced by ethernet modems. Over here that USB-ADSL things are not used by ISPs anymore. (That's to say the ones I met so far.)

So I don't expect problems when you give that modem it's own 5V power supply and disconnect the USB power line. The USB connectors are designed to make ground contact first, then power and then signals. Maybe the modem has an external power connector or was ever prepared for it. You may find out when you open it.

BTW It might have helped to mention the brand and type of that USB-ADSL-thing.

petrus bitbyter

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