



USB Cable Length Limitations:

The USB specification limits the length of a cable run to 5 meters (16.4 feet) for USB 2.0 hi-speed applications or 3 meters (9.9 feet) for USB 1.1 low-speed devices. Essentially, this means that you're unable to "daisy-chain" several USB extensions cables together and run them more than 5 meters. You can, however, have a 6 foot cable and a 10 foot extension cable run for a total of 16 feet making the power of USB very limited.

Most USB cables fall under the USB 2.0 Hi-Speed specification and have the 5 meter limit. Low-speed devices are generally keyboards and mice and have a maximum length of 3 meters.

In order to go beyond these limits you need to use of the following:

- USB hubs,
- USB active extension cables or
- USB over Ethernet products.

Solutions:

USB Hubs:

You can use extension cables and up to 5 USB hubs connected together to extend USB cables' range up to 30 meters (up to 27 meters for low speed devices under the USB 1.1 standard). The distance between each hub can be no more than 5 meters due to the limitations of the non-boosted USB cables.

Active Extension Cables:

USB active extension cables contain electronics which regenerate, or boost, the USB signal. These cables are essentially 1-port USB hubs that allow you to extend your signal up to 30 meters (up to 27 meters for low-speed devices) by connecting up to five 5 meter active extension cables in a "daisy-chain" fashion (4 cables if you are connected to a USB hub).