

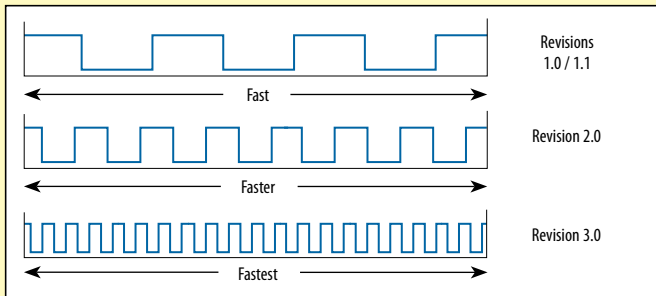


## USB speeds:

**Revisions 1.0 / 1.1 devices** operate at 12Mbps maximum. This is adequate for mice, keyboards and some printers but frustratingly slow for large amounts of data or video.

**Revision 2.0 devices** operate at 480 Mbps maximum. This is plenty fast enough for mice, keyboards and most printers but can still require long periods of time for large amounts of data or video.

**New Revision 3.0 devices** operate at 4.8 Gbps maximum, approximately 10 times faster than revision 2.0. The increased bandwidth substantially reduces the time required for transferring large amounts of data or video. For example, an HD movie that requires 14 minutes to download with USB 2.0 devices and cables takes approximately 70 seconds using USB 3.0 equipment.



### Backward Compatibility:

USB 2.0 and 1.0/1.1 are fully mechanically compatible.

**Type A** - 3.0, 2.0 and 1.0/1.1 are mechanically compatible. The 3.0 connector adds additional contacts to achieve the higher speeds.

**Type B** - 2.0 and 1.0/1.1 connectors are compatible with 3.0 ports but not vice versa. This is due to the extended perimeter of the 3.0 connector.

**Micro B** - 2.0 and 1.0/1.1 connectors are compatible with 3.0 ports but not vice versa. The 3.0 connector adds an extended portion for the extra contacts.

The weakest link in the chain rule applies to USB systems – speed will be limited to the lowest revision host, cable or device in any given system.