

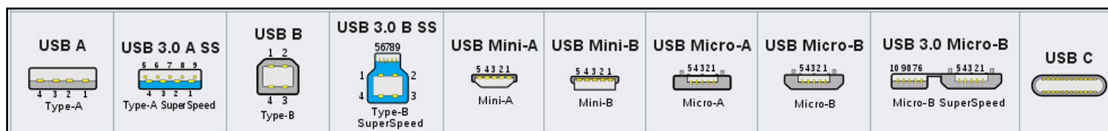
CONNECTORS

USB

(Universal Serial Bus) is an industry standard 4-pin connection that establishes specifications for cables, connectors and protocols for connection, communication and power supply between personal computers and their peripheral devices. Released in 1996, the USB standard is currently maintained by the USB Implementers Forum (USB IF). There have been three generations of USB specifications: USB 1.x, USB 2.0, USB 3.x.



There are many types of USB connector ...



VGA

(Video Graphics Array) is a graphics standard for video display controller first introduced with the IBM PS/2 line of computers in 1987, following CGA and EGA introduced in earlier IBM personal computers. It is a 15-pin D-subminiature connector.

VGA was the last IBM graphics standard to which the majority of PC clone manufacturers conformed, making it the lowest common denominator that virtually all post-1990 PC graphics hardware can be expected to implement.



Today, the VGA analog interface is used for high-definition video, including resolutions of 1080p and higher. While the transmission bandwidth of VGA is high enough to support even higher resolution playback, there can be picture quality degradation depending on cable quality and length. How discernible this degradation is depends on the individual's eyesight and the display, though it is more noticeable when switching to and from digital inputs like HDMI or DVI.

HDMI

(High-Definition Multimedia Interface) is a proprietary 19-pin audio/video interface for transmitting uncompressed video data and compressed or uncompressed digital audio data from an HDMI-compliant source device, such as a display controller, to a compatible computer monitor, video projector, digital television, or digital audio device.

Several versions of HDMI have been developed and deployed since initial release of the technology, but all use the same cable and connector. Other than improved audio and video capacity, performance, resolution and color spaces, newer versions have optional advanced features such as 3D, Ethernet data connection, and CEC (Consumer Electronics Control) extensions.

Production of consumer HDMI products started in late 2003. HDMI began to appear on consumer HDTVs in 2004 and camcorders and digital still cameras in 2006. As of January 6, 2015 (twelve years after the release of the first HDMI specification), over 4 billion HDMI devices have been sold.



