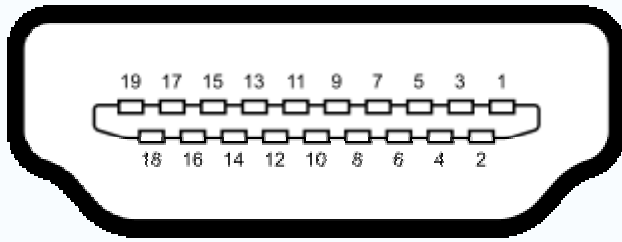


HDMI Connector

Pin numbers (looking at socket):



Type A Connector Pin Assignment

Pin	Signal Assignment	Pin	Signal Assignment
1	TMDS Data2+	2	TMDS Data2 Shield
3	TMDS Data2-	4	TMDS Data1+
5	TMDS Data1 Shield	6	TMDS Data1-
7	TMDS Data0+	8	TMDS Data0 Shield
9	TMDS Data0-	10	TMDS Clock+
11	TMDS Clock Shield	12	TMDS Clock-
13	CEC	14	Reserved (N.C. on device)
15	SCL	16	SDA
17	DDC/CEC Ground	18	+5 V Power
19	Hot Plug Detect		

Distance limitations

A reported problem with HDMI is the maximum cable length. As with all cables, signal [attenuation](#) becomes too high at a certain length. For the standard HDMI copper cables at 28 [AWG](#), some users have found signal performance degrades above a cable length of about 5 meters (~16 feet). For front projection televisions and computer hookups, this can result in lost data and the video device compensating in unacceptable ways.

The HDMI Web site, however, disputes the 5 meter limit. "HDMI technology has been designed to use standard copper cable construction at long lengths. In order to allow cable manufacturers to improve their products through the use of new technologies, HDMI specifies the required performance of a cable but does not specify a maximum cable length. Cable manufacturers are expected to sell reasonably priced copper cables at lengths of up to 15 meters."

One reported way to increase the distance limit is to increase the thickness of the copper cables, effectively decreasing [impedance](#). 24 AWG wire is considered superior to 28 AWG. Another way is to use [fiber optic](#) or dual [Cat-5](#) cables instead of standard copper. Some companies also offer [amplifiers](#) and [repeaters](#) that can string several HDMI cables together.

WHAT IS HDMI 1.3 ?

HDMI 1.3 is an improved specification for the HDMI standard, with upgrades to each of the HDMI components.

HDMI 1.3 offers a higher video throughput, at 340Mhz, to allow for higher resolution displays, Deep Color (up to 48-bit RGB or YCbCr color depths), and the new Dolby standards for lossless compressed high-definition audio.

HDMI 1.3 uses a smaller connector than the original HDMI connector. They are both similar in appearance, but the HDMI 1.3 plug measures about half the size. HDMI 1.3 is expected to appear in commercial products by the end of the year, starting with the release of the Sony Playstation 3. Models of DVD players, high-definition displays, and AV receivers released in 2007 are also being designed with HDMI 1.3 connectors.

WHAT CAN HDMI BE USED WITH ?

To function as an all-inclusive interface, HDMI is being implemented in virtually all multimedia devices, from HDTV's and DVD players to computers and stereo receivers. It is compatible with DVI products and can be converted with a simple adaptor plug.

HDMI and HDMI 1.3 are also entirely cross-compatible, and can be easily connected with a mixed-connector cable.

