

New Product Bulletin

NP 266

Belden® HDMI Cables

Belden, the leader in professional audio/video signal transmission technology, now offers a reliable HDMI interface between any compatible digital audio/video source and a compatible digital audio and/or video monitor.



Belden Introduces HDMI Cables for High Definition Audio and Video

The world of entertainment media is going digital at an amazing pace. One major element of that rapidly-evolving scene is the advent of home theater, an exciting entertainment option that provides consumers with a total-immersion viewing and listening experience.

But home theater devices must be capable of sending and receiving a wide range of video and audio signal types. That means the selection of cables to support that signal traffic will be critical – no one wants to bury new cables behind dry-wall today only to find out tomorrow they degrade image and sound. The use of HDMI-compliant cable from Belden will help ensure that you enjoy superior, uncompressed digital video and audio quality in your new home theater as your installation expands and evolves.

More audio-video professionals use Belden than any other cable brand. In fact, more radio and television broadcasters use Belden than all other brands combined. As these broadcasters have migrated to digital transmission technology, Belden has remained the brand they prefer. Now, the #1 choice of professionals can be your choice, too.

Belden offers a complete line of cables and related products for use by the home theater installer, including 26 AWG shielded twisted pair HDMI cables in lengths of 1, 2, 3, 4, and 7 meters.

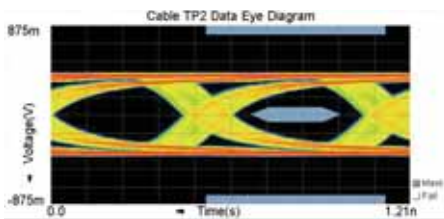
What is an HDMI Cable?

The acronym "HDMI" stand for High Definition Multimedia Interface. It's the first (and to-date only) industry-supported interface for uncompressed, all-digital audio/video. This standard was created by a consortium of media-industry giants for high performance digital connections. There have already been five versions of HDMI since it was first released in 2002. Each has provided the consumer more features and performance, but also specified more speed and bandwidth.

An HDMI cable gives you a reliable interface between any audio/video source and any audio and/or video monitor in your home theater setup, as well as providing support for standard, enhanced, or high-definition video and multi-channel digital audio – all on a single assembly!

To cite just a few application examples, Belden HDMI digital video/audio cables might be used to connect HDMI sources like broadband/cable set-top boxes, digital video recorders, DVD players, HD-DVD and Blu-ray players to displays like plasma screens, digital light projection (DLP) projectors, liquid-crystal displays (LCDs) and liquid crystal on silicon (LCOS) or digital image light amplification (D-ILA) devices, among others.

HDMI Cable by Belden



The signal in a Belden HDMI cable is error-free.

Belden® for Quality

Digital computer data is relatively tolerant of transmission losses, but video data is not. If you want a sharp, clear picture on your displays, accurate transmission of data bits is essential. That means it's important to purchase a high quality HDMI cable. Unfortunately, quite a few inferior cables, not tested or certified to exacting specifications as are Belden products, are being marketed today.

What you'll see on your displays when you use inferior cables depends on your system sources and the capabilities of your TV, but might include problems like pixel loss, colors not as deep as they should be, an increase of image graininess, the presence of artifacts – and, possibly even a total loss of picture.

Currently, 1080p (Category 2, version 1.3b) is the highest resolution format used for broadcasting and consumer distribution of video content. In the term "1080p" the number 1080 represents 1080 lines of vertical display resolution, and the letter p stands for a progressive (non-interlaced) scan. Belden's HDMI cables are performance tested to verify their capability to handle transmissions in advanced high definition applications based on 1080p. Our digital video/ audio cables are also UL-rated for residential and commercial installations (including in-wall use).

Belden verifies HDMI cable performance, among other methods, with a technique known as an "Eye-Pattern" test. Other critical electrical parameters tested by Belden include Impedance, Attenuation, Crosstalk, and Skew.

In eye pattern testing, the digital data signal traveling along the cable is repetitively sampled and applied to the vertical input of an oscilloscope, while the data rate is used to trigger the horizontal

sweep. The result seen on the scope is a series of lines that might be thought of as signal traces. In the very middle of the eye diagram is a flattened hexagon called the "eye mask." If signal traces cross into the region of the eye mask, the cable fails the test (see the pattern on left in the Figure). On the other hand, an acceptably-performing cable (or other HDMI component) will yield a wide "eye" area.

In general, if a source – a device generating an HDMI signal – produces a good signal and if the HDMI cable delivers that signal at least well enough to pass the eye pattern test, the display in your home theater setup should be able to reconstitute the digital signal without errors. (See Belden's Eye Pattern test results.)

Ready for the Future

The Digital Revolution is just beginning. In the not too distant future, you'll see exciting new digital applications and devices and new ways to enjoy music and movies in home theaters, as well as more advanced technology enabling you to receive the critical data you need in your business, and vital news to keep you informed.

New cabling solutions from Belden will help take you into that exciting future world of home entertainment. Meanwhile, the Belden HDMI cable you choose today will be the safest product on the market to ensure your home theater investment will be future-proof.

Belden HDMI Cable Assemblies

Part No.	UL NEC/C(UL) CEC Type	Length Meters	Length Feet	Connector	HDMI Assembly Compliance	1080i Verified	1080p Verified
HD2001	CM or CL2	1	3.28	Gold	Category 2, Version 1.3b	✓	✓
HD2002	CM or CL2	2	6.56	Gold	Category 2, Version 1.3b	✓	✓
HD2003	CM or CL2	3	9.84	Gold	Category 2, Version 1.3b	✓	✓
HD2004	CM or CL2	4	13.12	Gold	Category 2, Version 1.3b	✓	✓
HD2007	CM or CL2	7	22.96	Gold	Category 1, Version 1.3b	✓	