

Monster Advanced For HDMI

The Need For Speed

Noel Lee, The Head Monster

Monster has been a leader in HDMI cable innovations since its beginning. The latest generation of Monster Advanced For HDMI supports the newest in advanced technologies—1080p and higher resolutions, Deep Color™, lossless audio, and higher refresh rates for smoother motion. In fact, Monster Advanced For HDMI cables are built to go beyond the HDMI 1.3 Category 2 specifications, providing the bandwidth necessary for the best high-definition today and the advances that will come in the future.

There are varying data transfer rates required for sending the audio/video signals through an HDMI cable. An upscaling DVD player, at 480p resolution, has transfer needs of only .81 gigabits per second (Gbps). High-definition TV requires 2.23 Gbps. For new formats, such as HD DVD and Blu-ray Disc players, along with TVs that have 1080p resolution—referred to as “True HD” or “Full HD”—the data rate has raised to 4.46 Gbps, double that of HDTV. With the addition of the advanced picture-quality technologies like Deep Color—10-, 12-, and 16-bit color per channel—and higher refresh rates, as well as lossless multichannel audio, can require up to 10.2 Gbps or more. Even as 1080p begins to take hold, there is already talk of even greater, computer-display-level pixel densities putting even greater demands on HDMI cables to move more data. Monster always strives to push the envelope on new innovations in HDMI cable technology. This includes increased bandwidth and durability to provide our customers with cables that will fulfill the promise of HD picture quality.

To meet the demands of varying data rate requirements, Monster has released our line of Monster Advanced For HDMI Speed-Rated Cables. By speed-rating the cables, a customer who simply has an AppleTV or upscaling DVD player can buy a Standard Speed HDMI cable at a cost savings.

On the high end, Monster's Advanced HDMI cables perform at higher speeds than the HDMI 1.3 Category 2 specification. The speed ratings are based on unequalized, worst-case conditions. The Ultimate High Speed—for 14.9 Gbps and greater—is the highest performing speed category. This cable includes advanced new technologies that maintain its performance even over long lengths. If you want to future-proof your system, there is nothing faster or better available.

The Ultra-High Speed HDMI cable delivers 10.2 Gbps and greater speed. This high-performing cable is ready to deliver not just everything available today but also all the amazing technologies that are right around the corner. It also allows for longer length performance. For those who want better performance from today's technologies, such as advanced color and lossless surround sound audio formats such as Dolby® TrueHD and DTS®-



HD Master Audio, Monster High Speed cables deliver a minimum of 4.95 Gbps. For entry-level 720p HDTV and for non-HD sources, Monster Standard Speed cables deliver a minimum of 2.23 Gbps.

To further clear up the confusion, Monster guarantees that select Monster Advanced For HDMI cables are ready for resolutions of 1080p and beyond and for eight channels of 192 kHz, 24-bit high-resolution audio for the most immersive surround sound experience.

Many HDMI cables not made by Monster are built to transfer 720p and 1080i resolution, but when you use that same cable for 1080p resolution, the cable can fail. Cable-induced video artifacts include color banding, pixel dropouts, colored pixels popping intermittently on the screen, decrease in color quality, and “solarization.” In severe cases, there will be “noise” and “snow” and streaks that occasionally blast across the screen. In the most severe cases, the picture will black out altogether. In high-performance audio, where one can have eight channels of 192 KHz, 24-bit audio, quality can deteriorate due to jitter. Customers have reported many instances where picture quality was poor, and replacing their generic cable with a Monster Cable solved their problem.

High performance is critical in maintaining HDMI performance over longer cable lengths. Consumers desire to set up front projectors or hang their great-looking “thin” panels on the wall and to place components out of sight or far away. This puts high demands on HDMI cable performance. It's not uncommon to find video components located 25, 50, and even 75 feet away from the TV. This means that data-intensive high-definition video and audio must be transmitted over very long distances to projectors far from the components and in need of long lengths. Monster is a leader for HDMI in custom installation. Monster HDMI For CI features high performance at some of the longest lengths on the market, as well as extra-durable connectors, protective jackets, and CL-3 fire-rating certification that allows in-wall installation. Monster Advanced For HDMI cables give customers the peace of mind of knowing that their custom-install cables will work with the best gear now and in the future without costly upgrades and rewiring.

Monster Advanced For HDMI cables are designed to withstand the abuse that in-wall installations put on cables. Pulling HDMI cables through walls and small holes, bending around sharp corners, and tugging on the connectors to pull them through ceiling or TV mounts can significantly affect cable performance. Monster's rugged connectors, oversized conductors, and meshed jackets protect cables from damage.

Demanding displays and devices, long lengths for custom installation—HDMI cables have a lot to deliver. Unfortunately, HDMI cables were never designed for



this purpose, and performance over long lengths is not specified in the HDMI standard. Therefore, highly advanced cable designs are required to meet the performance specifications of HDMI Category 2 and beyond. Monster uses larger conductors, special winding techniques, and low-loss dielectrics (conductor insulators) to maintain high-performance HDMI data integrity, even over long lengths.

Monster construction and technology allows for some of the longest cable lengths available. In addition, with Monster's special cable-balancing networks, hundreds of feet of cable are now available. Best of all, Monster's HDMI cables are CL-3 safety rated so they can be run through walls—a must for flat screens that hang on the wall. The high standards and data throughput requirements on the HDMI interface require proper testing to make sure the cable can deliver. The test standards themselves are new, and very few labs have the equipment to accurately test cables. Reviewers and writers who have done casual visual testing, without the proper test equipment and processes, may not have reported all of the differences in cables. Monster has always conducted state-of-the-art testing on cables. It has been found that HDMI cable performance varies widely, and many so-called HDMI cables being sold do not meet actual HDMI cable specifications.

It is important not only to have speed-rated cables, but verification by a third-party source. Simplay HD is the test lab with expertise in

validating HDMI performance of all components, including cables. The Simplay HD Testing Program is comprised of leading consumer electronics manufacturers and technology providers focused on delivering fully compatible products for consumers. Monster Advanced HDMI cables will be speed verified by Simplay, so you can have confidence and know what you are getting.

Monster is committed to being the HDMI leader. With proper engineering and test methods, meticulous manufacturing, and stringent quality control, the benefactor is our customer. In fact, we guarantee it. Monster has always guaranteed that if any cable does not work over its lifetime, it will be replaced at no charge. That's the Monster commitment to quality. [WSR](#)

The Author

Noel Lee is Founder, President, and The Head Monster of Monster Cable Products, Inc. based in Brisbane, California. Please visit www.monstercable.com or contact Noel Lee at nlee@monstercable.com or phone 415 840 2000.

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