



BY BARBARA GONZALEZ

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# Making the Match

## New A/V technologies require the right cables

New innovations to improve picture quality have been incorporated into video components and TVs at a lightning fast pace. The goal is the most lifelike video experience possible. These technologies require enormous amounts of audio and video information. In turn, those faster data rates require larger bandwidth. That all places higher demands on the cables that carry the signal to the TV and A/V receiver.

High-performance cable manufacturers have kept these future needs in mind when designing their cables. Customers need to be assured that the cables they buy will enhance, not hinder, their home theater systems.

“HDMI technology is moving faster than any other consumer technology in history,” said Demian Martin of Product Design Services, an A/V consulting firm. “In the past four years the cable speeds needed to transfer high definition have gone from 1.5 Gbps for 720p resolution to over 10 Gbps on Blu-ray players, with 1080p Full HD resolution and Deep Color. It won't be long before we see resolutions of 1440p, which will outstrip the capabilities of modest, generic HDMI cables. We need only look at the recent past to see how fast these technologies will progress, along with the need for high-performance HDMI cables to keep up with them.”

Deep color is one way to bring realism to picture quality. Blu-ray Disc players are converting standard 8-bit color depths to 12-bit Deep Color. The result is smoother transitions of color and a true-to-life picture. When Deep color is added to full-HD 1080p resolution, along with lossless Dolby True-HD and DTS-HD Master Audio high-definition surround sound, the player outputs as much as 8.94 Gbps of audio and video information. This is more than four times the data that is transferred from a standard DVD player.

When selling new components, it's important that retail associates know when to include high-speed cables with the sale. Components with Deep Color functionality, for example, require high-speed cables. As another example, Pioneer's Blu-ray Disc players provide the option of turn-

ing on a High Speed HDM setting, providing the viewer with the optimal picture quality. But using an HDMI cable that cannot transfer the increased data signal can result in severe picture interference.

The need for even higher speeds of HDMI is growing. Until now, a 120Hz LCD TV only accepted 60 frames per second and used processing (interpolation) to smooth the picture and increase the rate to 120Hz. At this year's CES, displays from Samsung and Viewsonic will be capable of accepting a 120-frame rate. This is made possible with Nvidia's GeForce GTX 260+ graphics card, which can output 120 Hz. The past has shown that computer display technologies quickly migrate to TVs and home theater, requiring even faster cables.

Many HDMI manufacturers are preparing for the new demands on high-performance HDMI cables. Monster Cable, for example, created speed badging so that a customer could match their home theater system requirements with a cable that could handle the speed needed for the best performance. Speed badging allows Monster

to offer a number of HDMI cables at a wide range of price points, starting at \$49. Monster's new Hyper-Speed cable is verified to handle more than 13 Gbps, which goes far beyond any of today's technology needs.

“HDMI is cutting edge technology; however that edge is constantly moving forward,” Xiaozheng Lu, senior vice president of product development of AudioQuest, said. “AudioQuest HDMI is designed with data-rate headroom far

beyond what is required for present day performance. This also means that current customers benefit from the lower error rates when this kind of data headroom capability is built into AudioQuest's existing line of HDMI cables.”

It is clear that there is a need for high-performance HDMI cables that can handle the

increasing data transfer speeds of today's and tomorrow's technologies. When selling an HDMI cables, make sure they are tested and verified so your customer will get the home theater performance they paid for.

*Barbara Gonzalez is a paid consultant for Monster Cable.*

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