

Extending the Signal

HDBaseT Standards Help Reduce HDMI Headaches for Atlona

The biggest trend for HDMI distribution today is the use of HDBaseT technology, which has become the *de facto* standard in the AV world for extending an HD signal 280 feet farther than its previous 50-foot limit. This technology is a 100-percent digital transmission system that has the bandwidth for the highest video resolution, such as full HD 1080p and 2Kx4K, in addition to providing support for 3D formats.

HDBaseT Lite is the first technology standard to provide all-in-one connectivity, making it possible for a single display source to receiver power, audio and video, internet, and control signals from a single "category" cable. Because this technology is now becoming the standard for many manufacturers, the reliability factor for HDMI distribution has increased, as well.

Atlona is one company, out of many, that has fully embraced HDBaseT for its HDMI extender and matrix switcher solutions. Last month, the Sunnyvale, CA, manufacturer began shipping its latest line of HDMI extenders featuring HDBaseT Lite technology, which is the more affordable

version of the original standard. While HDBaseT is intended for high-end, high-spec installations, HDBaseT Lite has been specifically developed for mid-range projects that perhaps do not necessitate such a high specification or a premium price tag.

Atlona president and CEO Ilya Khayn acknowledged that HDBaseT technology has set the standard for all Atlona extender

—Ilya Khayn, President and CEO, Atlona

products and that using this technology across the entire line allows his company to create "high-value and easy-to-integrate solutions" for its customers, providing "seamless interoperability" between Atlona equipment and other AV components. The challenge, however, is creating products that can still stand out from the competition, while based on



Atlona's AT-HDTX (transmitter) and AT-HDRX (receiver) HDMI extender products utilize HDBaseT Lite technology.

the same platform.

"Atlona has been working with HDBaseT since the beginning, so we've learned how to implement all of its powerful features correctly," Khayn said when asked about that challenge. "Since it is a very high-speed interface, it took a significant amount of ground work to get it just right. Atlona has demonstrated several unique implementations of the technology at CEDIA and ISE, and will continue to differentiate itself in its use of HDBaseT going forward."

Khayn noted that while HDBaseT products enable much easier and more cost-effective integration for his company's dealers, integrators still need to understand the concepts of HDMI extension and potential challenges related to HDCP, EDID, or Hot Plug management. "Atlona offers educational courses and test equipment to make integration smooth and efficient," he said. "It's also important to remember that not all HDBaseT equipment is compatible, so integrators need to specify brands that have credibility building solutions utilizing this technology."

For those, like Atlona, that have embraced HDBaseT solutions, it's the increased reliability of HDMI that's the biggest draw. "The difference has been night and day," Khayn explained. "We are receiving very high satisfaction ratings from our customers who are utilizing our new solutions based on HDBaseT technology. The combination of HDBaseT technology with proper implementation of it into our products has allowed us to dramatically reduce reliability issues in the field."

—Jeremy J. Glowacki

Atlona's New Line is HDBaseT Lite

Late last year, Atlona unveiled its AT-PRO3HD44 M4x4 HDMI matrix switcher, and this was followed shortly after with the shipment of its AT-HDTX (transmitter) and AT-HDRX (receiver) HDMI extender products, and most recently, its AT-HDCAT HDMI distribution amplifiers. All utilize HDBaseT technology, which has become the *de facto* standard in the AV world for distributing HDMI.

Atlona's extender family sends audio, video, and IR control over a single category cable. The company's AT-HDTX and AT-HDRX are intended for moderately priced home theater installations, extending 1080p up to 230 feet. The AT-HDRX extender series offers the reliability of HDBaseT Lite with the addition of IR control functions. Both pairs feature Power over Category C cable (PoC) to eliminate a power supply for the receiver.

The HDMI extenders also feature locking HDMI and USB firmware update ports, support for resolutions up to Ultra HD (4Kx2K), and CEC pass-through. Along with support for 3D, they also support digital audio signals up to DTS-HD Master Audio and Dolby TrueHD. Captive-screw terminations for control and power provide a more secure connection and help reduce wire bundles for



Atlona's AT-PRO3HD44M 4x4 HDMI matrix switcher

cleaner looking racks. The units are all compatible with Atlona's new HDMI matrix switchers and distribution amplifiers.

It's a technology marriage that Atlona president and CEO Ilya Khayn said, will continue for his company. "As the needs of our customers increase daily," he said, "Atlona will continue working with HDBaseT toward mutual innovation."

—JG

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