



Considering the complexity in connecting business networks, wiring home entertainment systems, or broadcasting multimedia contents on commercial signages, it is imperative how installation cabling can be simplified, despite space or distance limitations. ATEN's new HDBaseT-enabled solution has just the answer to that. To help shape the future of digital connectivity in the professional A/V industry, ATEN has joined the HDBaseT Alliance as an adopter member to deliver value-added products empowered by the benefits of HDBaseT technologies.

The HDBaseT technology advocates a 5Play™ cornerstone, defining a feature set that converges **video** (of uncompressed full HD digital signal), **audio**, **Ethernet** (100BaseT), **power** (over cable) and various **control** signals through a single LAN cable. It has become a connectivity standard for whole-home and commercial distribution of uncompressed full HD multimedia content.

Features and Benefits

ATEN's HDBaseT-enabled solutions optimize professional A/V installations by implementing the capability to transmit multiple digital signals at once via one single Cat 5e/6 cable, without consuming much bandwidth overhead for video content transmission. As far as system integration and efficiency is concerned, HDBaseT is a simplicity progressive technology that has become an industry standard by providing revolutionary and unprecedented solutions to ensure product interoperability across vendor platforms.



Simplified Cabling

In most professional A/V installations, delivering audio and video signals over a long distance usually requires heavy cabling connecting various input and output across numerous devices. These installations often end up with disorganized wiring setup, making it expensive and difficult to re-wire or upgrade hardware when the occasion calls for it. HDBaseT's extension technology makes installation easier by connecting the transmitter and receiver over a single twisted-paired LAN cable with a standard RJ-45 connector, which not only reduces the cost and assortment of cables needed for setup, but also optimizes the deployment in a simple and easy-to-manage environment.



Ultra HD and High Quality Audio

As screen resolution evolves along with the functionality of display equipments day after day, the demand for Full and Ultra HD content is getting more and more significant and vital nowadays. The HDBaseT technology comes with the capability to transmit uncompressed video output of Full HD/3D and up to 4K effective image resolution, as well as audio output of Dolby true HD and DTS HD Master Audio standard. With video content passed through HDMI chipset, all key HDMI 1.4 features including EPG, CEC, EDID and HDCP are supported.



Long Distance Transmission

Cable length has always been quite a challenge in hardware installations, especially in cases where large-scale A/V operation is required to deliver multimedia contents across numerous screen displays located far from the sources. The HDBaseT technology enables seamless integration of professional A/V equipments by using a single Cat5e/6 cable over 100 meters.



Flexible Control

In addition to delivering uncompressed audio and video signals, HDBaseT also enables and certifies the transmission of wide-ranging control signals for various operation purposes, including CEC (Consumer Electronic Control), RS-232, USB, infrared (IR), as well as IP control due to its support of an Ethernet channel. Given the flexibility, system integration is made much easier by facilitating remote control over a point-to-point connectivity or point-to-multi-point deployment of network managed devices, without the need for redundant installation.



Anti-jamming Design

Considering video distribution over a long distance usually suffers delays, lags or missing frames when contents are streamed, stable and smooth signal transmission is just as essential as video clarity. The HDBaseT features anti-jamming mechanism that resists signal interference during high-quality video transmission, ensuring continuous video streaming and jitter-free viewing experience.

One Single Cable. One Simple Solution.

Despite the diversity of professional A/V deployments, ATEN's HDBaseT solutions follow the formal framework of this industry standard that aims to simplify digital connectivity through a single Cat 5e/6 cable. They are developed to cope with a wide range of pro-A/V

applications that often demand a fast and efficient way to switch and distribute rich multimedia video of high definition over a point-to-point or point-to-multi-point installation.

Digital multimedia distribution

Media Distribution Solution (MDS) – incorporating a VS1814T or VS1818T splitter with VE812R receivers comes in handy in occasions that require video distribution from one source to multiple output destinations over a lengthy connection. The MDS features an optimized installation that connects various devices through a single Cat5e/6 cable instead of bulky traditional ones, reflecting a neater, faster and more reliable work environment. Its support for dual A/V outputs allows two display devices to be connected directly to a receiver, which also helps reduce the cost for extra hardware, making the solution truly cost-effective. The built-in RS-232 port in VS1814T/VS1818T further allows effortless integration of a control system to customize management of operations. This solution is ideal for digital signage applications in public and commercial districts where digital information or news flash can be instantly posted for advertising or emergency alerts, or program broadcasting that requires instant video switching to distribute footages across multiple screens.



VS1814T / VS1818T
4 / 8-Port HDMI Over Single Cat 5 Video Splitter



VE812R
HDMI Over Single Cat 5 Receiver

Information Sharing

The VE813 is an HDMI HDBaseT extender with iCron's ExtremeUSB® connectivity that provides touch panel control and file transfer functionality. These features allow synchronization of files and folders between portable and desktop computers through transparent USB signal transmission. The extender allows connection of up to 3 USB devices, such as keyboard, mouse, printer, game controller, USB flash drive, touch screen monitor, and more. With connection through a single Cat 5e/6 cable, data and signals can be transmitted up to 100 meters. Incorporating ExtremeUSB® and robust USB 2.0 functionality, the VE813 is ideal for home theater, medical imaging and digital signage applications.

Interactive Installation

ATEN VE814 is capable of streaming video over three HDMI displays with one connected at the local console while the others connected remotely. Its two IR channels for bi-directional signaling pass-through and support for an RS-232 serial connection also allow for easy and efficient control of the HDMI video source with system operations from the remote unit (VE814R), while granting access to HDMI displays from the local unit (VE814T). The VE814 also carries an Ethernet pass-through port on both the transmitter and receiver units for direct access to the Internet. This is a perfect solution for conference centers, corporate training facilities, schools and other environments that require multimedia content distribution.

Remote Site Control

In places where a touch panel, USB connection, and data transfer between computers is required with extended computer access, such as in transportation centers, medical facilities, shopping malls or elsewhere, the CE610 – a USB DVI KVM extender takes advantage of HDBaseT technology by extending an installation up to 100 meters using a single Cat5e/6 cable to provide access to a computer from a remote site. The CE610 is also equipped with USB 2.0 connectors for additional devices to be extended between the local and remote consoles.



VE812

HDMI Over Single Cat 5 Extender



VE814

HDMI Extender Over Single Cat 5
with Dual Display



CE610

USB 2.0 DVI KVM Extender

With the adoption of HDBaseT technology in ATEN's exclusive connectivity solutions, many network and system integrations have been made easier and more advanced through simplified cabling, which has become beneficial and profitable in a broad-ranged professional A/V applications. ATEN's HDBaseT-enabled products step it up a notch to maximize existing connectivity solutions with cost-effective device management and elevated system efficiency.



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