HDBASET TECHNOLOGY

HDBaseT is a connectivity standard for distribution of uncompressed HD multimedia content. HDBaseT technology converges full HD digital video, audio, 100BaseT Ethernet, power over cable, and various control signals through a single LAN cable. This is referred to as 5Play™, a feature set that sets HDBaseT technology above the current standard.

1. Video

HDBaseT delivers full HD/3D and 2K/4K uncompressed video to a network of devices or to a single device (point-to-point). HDBaseT supports all key HDMI 1.4 features, including EPG, Consumer Electronic Controls (CEC), EDID, and HDCP. The unique video coding scheme ensure the highest video quality at zero latency.

2. Audio

As with the video, HDBaseT audio is passed through from the HDMI chipset. All standard formats are supported, including Dolby Digital, DTS, Dolby TrueHD, DTS HD-Master Audio.

3. Ethernet

HDBaseT supports 100Mb Ethernet, which enables communications between electronic devices including televisions, sound systems, computers, and more. Additionally,

Ethernet support enables access to any stored multimedia content (such as video or music streaming).

4. Control

HDBaseT's wide range of control options include CEC, RS-232, and infrared (IR). IP control is enabled through Ethernet channel support.

5. Power

The same cable that delivers video, audio, Ethernet, and control can deliver up to 100W of DC power. This means users can place equipment where one wants to, not just those locations with an available power source.

6. HDBaseT Architecture

HDBaseT sends video, audio, Ethernet, and control from the source to the display, but only transfers 100Mb of data from display to source (Ethernet and control data). The asymmetric nature of HDBaseT is based on a digital signal processing (DSP) engine and an application front end (AFE) architecture.

HDBaseT uses a proprietary version of Pulse Amplitude Modulation (PAM) technology, where digital data is represented as a coding scheme using different levels of DC voltage at high rates. This special coding provides a better transfer quality to some kinds of data without the need to "pay" the protecting overhead for the video content, which consumes most of the bandwidth. HDBaseT PAM technology enables the 5Play feature-set to be maintained over a single 330-foot (100 m) CAT cable without the electrical characteristics of the wire affecting performance.