InfoComm International 2017
HDBaseT New Products & Solutions
The HDBaseT Alliance advances and promotes the adoption of HDBaseT as the global standard for high definition, digital connectivity. Since its founding in 2010 by LG Electronics, Samsung Electronics, Sony Pictures Entertainment, and Valens, the Alliance has brought together the leading names in the consumer electronics and professional AV market. The cornerstone of HDBaseT technology is the 5Play, a feature set that converges Ultra-HD digital video, audio, 100BaseT Ethernet, power over cable, various control signals, and USB through a single LAN cable. For additional information on HDBaseT Alliance and membership benefits, visit www.HDBaseT.org.

HDBaseT Technology

HDBaseT has become the global standard for ultra HD video distribution in residential and commercial applications. It brings a rich feature set, increased reach, and better performance than existing solutions. The cornerstone of the technology is the 5Play, the converged delivery of high-definition digital video and audio, Ethernet, up to 100 W power, various control signals, and USB, through a single LAN cable.
New Products
Contributor Members
HDMI to HDMI/HDBaseT Scaler (CSC-6012TX)

- 4K video over a single Cat7 cable up to 100m and Cat5e/6 cable up to 70m
- HDMI with 18Gbps (600MHz) 4K support and HDCP 2.2/1.4 compliant
- Upscales 1080p signals to 4K over HDBaseT output; downscales 4K signal to 1080p
- Support signal bypass on HDMI output
- 4K UHD (YUV 4:4:4) to 4K UHD (YUV 4:2:0) conversion
- Data rates up to 18Gbps (600MHz) and Deep Color up to 1080p, 48-bit
- Supports UHD resolutions up to 3840×2160@50/60Hz (YUV 4:4:4) & 4096×2160@50/60Hz (YUV 4:4:4)
- Passthrough of all standard digital audio formats: LPCM 2.0/5.1/7.1, Bitstream, and HD Bitstream
- Test pattern generation and integrated EDID management
**HDBaseT to Dual HDMI Scaler (CSC-6012RX)**

- 4K video over a single Cat7 cable up to 100m
- HDMI with 18Gbps (600MHz) 4K support and HDCP 2.2/1.4 compliant
- Support signal bypass on both outputs
- 4K UHD (YUV 4:2:0) to 4K UHD (YUV 4:4:4) conversion
- Up to 18Gbps (600MHz) data rates (Deep Color up to 1080p, 48-bit)
- UHD resolutions up to 3840×2160@50/60Hz (YUV 4:4:4) & 4096×2160@50/60Hz (YUV 4:4:4)
- Supports passthrough of all standard digital audio formats: LPCM 2.0/5.1/7.1, Bitstream, and HD Bitstream
- Test pattern generation at select resolutions and integrated EDID management
Multi-format 4K UHD+ over HDBaseT (CH-2535TX & CH-2535RX)

- HDMI, DisplayPort, and VGA input support
- Input resolution support up to 4K@60Hz (4:4:4, 8-bit) via HDMI and DisplayPort
- HDBaseT 5Play convergence: High-Definition (HD) Video and Audio, Ethernet, 48V PoH, and Control (Bidirectional IR/RS-232 pass-through)
- Scaled Receiver's output supports resolutions up to 4K@60Hz (4:4:4, 8-bit) via HDMI
- Pass-through of LPCM 7.1, Bitstream and HD Bitstream audio formats
- Transmitter (PD) is powered by 48V PoH from the Receiver (PSE)
- Extended keypad control support for easy, single-button, macro activation (control keypad is optional)
HDMI/HDBaseT/VGA/CV to HDMI/HDBaseT Scaler with HDMI Bypass Output (CDPS-84HB)

- Switch and scale HDMI/HDBaseT/PC/Composite Video signals from any one of its eight inputs
- Simultaneously display on HDMI or HDBaseT outputs
- Full 5play convergence for easy integration of compatible transmitters and receivers
- Control via IR remote control, RS-232, IP/Telnet and Web GUI, with all information including system status presented on its comprehensive LCD display
10×10 HDMI 4K UHD+ and HDBaseT 4K UHD Matrix with LAN Serving & Audio Matrixing (CPLUS-1082CVEA)

- Routes ten HDMI sources to ten displays
- HDBaseT 5-Play convergence: High-Definition video and audio, 100BaseT Ethernet, PoH and control
- HDBaseT resolutions: VGA~WUXGA, 480i~1080p, 4K@24/25/30Hz (RGB, YUV 4:4:4 & YUV 4:2:2) & 4K@60Hz (YUV 4:2:0) dependent upon the output display’s EDID settings. HDMI output resolutions up to 4K@60Hz (RGB/YUV 4:4:4)
- Automatic 4K@60Hz RGB/YUV 4:4:4 to YUV 4:2:0 conversion for HDBaseT outputs
- 4K@30Hz signals can be transmitted up to 60m via Cat.5e/6 and up to 100m via Cat 6a/7
- LPCM 2.0/5.1/7.1, bitstream, and HD bitstream
- Audio matrix functionality, Integrated audio over CAT inputs and outputs, Digital to Analog Conversion
- Bi-directional IR support over HDBaseT, control via front panel controls
HDMI over HDBaseT Slimline Transmitter with USB and Optical Audio Return (CH-1602TX)

- Uncompressed UHD AV over a single Cat 5e/6/7 cable up to 100m/330ft
- Extended control and communication signals
- Built-in Ethernet, USB, RS-232 and IR ports
- Independent external digital and analog audio transmission
- Connect to any standard USB 2.0 host to the transmitter
- USB connection up to 2 USB
- Integrated 48V PoH
- Ultra-thin mechanical design
HDMI/USB over CAT5e/6/7 Wallplate Receiver with 48V PoH, LAN Serving, and Bi-directional Optical Audio Return (CH-1602TX)

- HDMI and Audio over Single Cat 5e/6/7 transmitter and receiver
- Uncompressed audio/video along with controls, IP and USB data over a single run of CAT5e/6/7 cable up to 100m
- Control through the built-in RS-232 and IR ports
- LAN serving connection and external digital and analog audio capability
- USB host, connection up to 2 USB ports
- 48V PoH design
HDMI over CAT5e/6/7 Transmitter with 48V PoH and LAN Serving (CH-1527TX & CH-1527RX)

- Uncompressed audio/video along with controls, IP and USB data over a single run of Cat 5e/6/7 cable up to 100m/330ft
- Built-in RS-232 and IR ports
- LAN serving connection and external digital and analog audio capability
- Connection of any USB host, enabling a USB connection to up to 2 USB ports
- 48V PoH design can power the Receiver (PD)
IP Vision KVM/AV over IP Management Platform

- Intelligent routing for matrix and group management
- Access management module for different access levels
- Director schematic diagrams of actual site
- Quality of service control QoS for video quality level control
- Unified keyboard mouse control several sources with one set of keyboard mouse, configured by software
- Video wall intuitive and simple video wall

ProAV IP Vision – Comprehensive Offering

- Unified KM Control
- Scaler
- Video wall controller
- LAN & P-WAN
- Auto-detection and real-time configuration of endpoints
- Unlimited matrix size
- IP network monitoring
- Compressed (1G switch)
- Uncompressed (10G switch)
- 3rd party API
- VMS gateway
- Location maps
- Security
- Diagnostics
- Access management
- Preset scenarios
Ultra-miniature Module for the Powered Device (Ag9900M)

- Miniaturised POE PD module
- SMT-21mm(L)x 14mm(W)x13.35mm(H)
- Smallest in the world
- 40% smaller than any other PoE solution
- Fully IEEE802.3af compliant POE
- Overload & short-circuit protection
- Industrial temperature option
- Power: 12W/12V, 9W/5V or 6W/3.3V
- 1500V isolation
- Integral DC/DC converter
- Low cost & simple integration
Silvertel (3761)

**SIL Package 24V Power over Ethernet Module (Ag5324)**

- Smallest package size to date: SIL - 57mm(L)x18mm(W)x14mm(H) 24V DC output
- POE + module compliant with IEEE 802.3af & at
- Up to 30 Watt of Output Power
- High efficiency DC/DC converter
- Adjustable output voltage
- 1500V DC impulse isolation
- Input voltage range 36V to 57V
- Minimal low cost external components required
- Overload, thermal and short-circuit protection
- Simple integration
Single Output Isolated DC-DC Boost Converter Module (Ag7100)

- Wide input supply 11V - 27V DC
- Maximum power 40W
- Adjustable output From 48V – 57V DC
- Small footprint 51mm(L) x 30mm(W) x 16mm(H)
- 1.5kV isolation
- Over current, thermal & short circuit protection
- High efficiency
- Low noise and output ripple
- Simple integration
**HDMI 2.0 Extender (HD-4K) (HLE-4K) (HDU-1)**

- One single UTP (Cat5e/Cat6) cable required
- Powered via one (supplied) 24V power supply
- Diagnostic indicator lights for monitoring performance and operation
- High quality steel case for cooling, shielding, and safety

IR bi-directional paths with power for pickup and passthru using included SMA-1 adapter

- Solid performance at 100m at 1080p, 70m @UHD4K, 60m (200') @full 4K/60Hz/4:4:4 w/HDR
- Fully automatic cable length compensation
- No dials or switches needed
- Power only required at Tx
Adopter Members
HDMI + VGA 4K Smart Switcher/Extender (NDS-SS21HD-KIT)

- Multi-format switcher with integrated HDBaseT transmitter
- Combines HDMI, VGA and audio connections
- HDMI signals up to 4K/UHD with embedded audio, VGA input signals up to 1920x1200
- VGA input is processed by a video scaler, sending video in the ideal resolution to the display
- SmartSwitch™ algorithm automatically selects the last source connected for display, allowing an intuitive operation to any user
- CEC Bridge™
- Electrical power with POC technology
**2x1 wall plate switcher and HDBaseT transmitter (AT-HDVS-210U-TX-WP)**

- HDBaseT switcher/transmitter with both USB-C input support
- Supports HDMI connectivity
- Compatibility with AV-capable USB-C ports
- Video up to 4K/UHD at 60Hz with 4:2:0 chroma subsampling to be transmitted over 328ft/100m
- Auto-switching and integrated display control
- Controlled via RS-232 or TCP/IP commands
- Power over Ethernet (PoE)
HTE-TX2/HTE-RX2 HDBaseT 2.0 Transmitter/Receiver (THE-RX2)

- 4K60 4:4:4 18Gbps; HDRHDMI 2.0/HDCP 2.2
- Dolby® TrueHD, Dolby Atmos®, DTS HD®, DTS:X®, 7.1 PCM audio support
- 100m (330ft) with unshielded Cat 5e cable
- Integrated web server for remote IP control and setup
- Dante®/AES67 options 2 or 8 channel
- Operate TX and RX from a PoE switch
- Two HDMI 2.0 inputs (HTE-TX2); outputs (HTE-RX2)
- Auto sensing inputs (HTE-TX2)
- Two 10/100 LAN ports; Two USB 2.0 Type A
- One USB 2.0 Micro for host PC; direction selectable
- Audio DSP for mixing, level control, & more
- RS-232, IR input, IR output
- Integrated IR receiver
HTE-TX2/HTE-RX2 HDBaseT 2.0 Transmitter/Receiver (THE-RX2)

- HTW-2 HDBaseT 2.0 transmitter wall plate; 4K60 4:4:4 18Gbps
- HDR (high dynamic range); HDMI 2.0/HDCP 2.2
- Dolby® TrueHD, Dolby Atmos®, DTS HD®, DTS:X®, 7.1 PCM audio support
- 100m (330ft) with unshielded CAT 5e cable
- Integrated web server for remote IP control and setup
- Dante®/AES67 options 2 or 8 channel
- Operate and power both TX and RX from a PoE switch
- Two HDMI 2.0 inputs; one VGA input; auto sensing inputs
- One 10/100 LAN ports; Two USB 2.0 type A; USB direction selectable
- Audio DSP for mixing, level control, & more
- One RS-232 on rear; IR input sensor on front and three backlit buttons
**IPBaseT® HTX-TC1 with HDBaseT-IP (THE-RX2)**

- 10G HDBaseT-IP simultaneous encode and decode with single port
- 10G SFP+ (Fiber) & 10G RJ-45 (Copper) in same unit
- HDBaseT integrated with IP
- Dante®/AES67 8 Channel for surround sound
- HDBaseT low cost unshielded Cat 5e cable for 4K60 4:4:4 resolutions
- Dual USB 2.0 links for two ost to device connections
4K HDBaseT over the new Belden UHD Media cable

- 100% shielding provides protection from noise interference with AV signal
- Single overall shield construction for speedy termination time
- UL Limited Power (LP) rated to 0.6A per conductor
- Interoperable with leading manufacturers’ AV equipment
- HDBaseT 4K UHD 100 meters with HDBaseT 5Play support
- 100W Power over HDBaseT (PoH) and Power over Ethernet (PoE)
100 Meter HDBaseT HDMI, PC, Wall Plate Transmitter (HD-HPCUWP-TX)

- HDBaseT 5-Play device: HD video (up to 4k @60hz.), audio, bi-directional control (IR & RS-232), Ethernet, and bi-directional power via 1 Cat 6A shielded cable out to 100m and two-way USB 2.0 on the same cable
- HDMI in & VGA video In (HD-15 female) with audio in (1/8" Mini Jack)
- IR reader window, and input selector button.
- Compatible with FSR’s 100 meter HDBaseT receivers
HDMI Switcher w/HDBaseT Input & 50 watt Audio Amp (VSA-X21)

- 4K HDMI audio extractor with EDID management
- Built-in 50 watt audio amp; Audio input
- Control via front panel, RS-232, digital pot (rotary encoder)
- HDMI Ducking
- Secondary RS -232 port for auxiliary device control
- Store separate commands for the auxiliary devices
- Compatible with X21-UI, UHBX-SW3-WP or UHBX-SW3-S and UI-KNOB-DP
- Supports HDMI, DVI, HDCP, 3D and Deep color
- Stereo or Mono output
- Priority Paging Sensor input (for automatically muting of the audio output)
- Compact, Rugged, Reliable, and Economical
SEAMLESS AV Modular Matrix Switcher (FMX16)

- 12 card slots for flexible input/output combination
- Comprehensive signal card compatibility: HDMI / DVI / SDI / VGA /
- Automatically recognize input/output signal card, output resolution adjustable
- Powerful EDID management
- HDCP compliant
- Seamless AV distribution through different AV signal
- Controllable via front panel buttons, IR, RS232 & TCP/IP
- HDBaseT cards with PoH function 4K seamless switching
Purelink (2273)

**4K HDBaseT Scaling Receiver for HTX Series Matrix Switchers (HTX Rx-S)**

- Ultra HD/4K source devices independently switchable to (4/8) Ultra HD/4K destinations
- Ultra HD/4K support with HDCP v2.2 compliance
- Independent switching to remote destinations via HDBaseT and (4/8) local destinations via HDMI
- Third-party control system compatibility via TCP/IP, RS-232 or IR, comprehensive EDID management, and a compact 1RU
- HDBaseT 5Play technology for Ultra HD/4K video
- HD multichannel audio distribution
- Bi-directional
Ultra HD 8x8 HDMI to HDBaseT Matrix Switcher with POE (HTX-4400-U) (HTX-8800-U)

- Ultra HD/4K source devices independently switchable to (4/8) Ultra HD/4K destinations
- Ultra HD/4K support with HDCP v2.2 compliance
- Independent switching to remote destinations via HDBaseT and (4/8) local destinations via HDMI
- Third-party control system compatibility via TCP/IP, RS-232 or IR, comprehensive EDID management, and a compact 1RU
- HDBaseT 5Play technology for Ultra HD/4K video
- HD multichannel audio distribution
- Bi-directional control via IR, RS-232 and LAN, Ethernet switching, and POE
**OneLINK Bridge AV Interface (999-9595-000)**

- Integrates pro AV sources into your PC via USB 3.0 media stream delivery
- Uses HDBaseT technology to extend power, control and video up to 100 m (328 ft) over a single Cat5e/6 cable
- USB output up to 1080p/60 video resolution
- Presentation switcher USB bridge
- Video conferencing USB bridge
- Pair it with any HDMI source (with EZIM)
- Use it as a stand-alone HDBaseT receiver to get USB 3.0 (video and audio) to table from HDBaseT AV switchers
Multimode fiber output card enables 4K UHD 444@60hz up to a massive 300m/984ft
HDMI in to HDBaseT out card offers slight compression to support 4K HDR 10-bit @60Hz within the HDBaseT bandwidth.
SDI Input card featuring balanced input/output audio to support Pro video applications such as broadcast, pro as broadcast, pro monitoring and event cameras
Thank you!