Plug & Play AV Distribution Designs for K-12 and Higher Education
**Smart Interactive Classroom**  
**HDMI & USB Over 1 CAT6**

This small classroom solution provides video and USB extension over a single CAT6 cable. It features built-in audio extraction, and the ability to program serial, IR, and I/O ports to control displays or other devices. Integrated IP control option available.

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**OPPORTUNITY**

Provide a single-cable solution for HDMI and USB extension to an interactive display. Allow remote access control over a network.

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**SOLUTION**

EX-HDU-WP carries HDMI and USB over a single CAT6. EX-HDU-R-IP outputs HDMI and USB. Network interface allows for remote control of RS-232, IR, and digital I/O.

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**Parts List - Smart Interactive Classroom Kit**

- **EX-HDU**
  - HDMI and USB Extension on CAT6 with Audio and Integrated Control

- **EX-HDU-IP**
  - HDMI and USB Extension on CAT6 with Audio, Integrated Control and IP

Also Available:
- HDMI, USB, CAT6 Cables

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**Benefits**

- Easy installation - HDMI and USB are extended over a single CAT6
- User-programmable option for external device control
- Extracted audio for use with an audio amplifier

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**Add-ons:**

- **AMP-4840** - Audio Amplifier
- **UI-IP8-DP** - 8-button IP Controller
- **CNT-IP-2** - Programmable Network IP Controller
This small classroom solution provides a quick, clean extension for video and USB, without requiring any additional setup or programming.

**OPPORTUNITY**
Provide a quick, clean extension of HDMI and USB for use with an interactive display.

**SOLUTION**

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**Parts List - Simple Interactive Classroom Kit**

- **GCDP-1HD x1**
  - HDMI Passive Extender Decora Plate
- **CHD-DE46 x1**
  - 4K Javelin™ Active Plenum HDMI Cable w/Detachable Ends
- **U22-160-DP x1**
  - USB over CAT6 Extender

**Also Available:**
- HDMI, USB, CAT6 Cables

**Benefits**
- 100% Plug and Play - no programming
- Extend 4K UHD video up to 100m
- Extend USB 2.0 up to 50m

**Add-ons:**
- **HD-AUD-IO** - Audio Extractor & Embedder
- **HR-4P** - Digital I/O Serial Controller
This small-to-medium classroom solution provides two HDMI and one legacy VGA inputs on a single wallplate, extended up to 100m over a single CAT6 cable. It features VGA upscaling, programmable source and power buttons, auto-switching, an optional remotely-located keypad, and lossless HDBaseT technology.

OPPORTUNITY
Provide a single-cable extension for multiple sources, including HDMI and VGA. Auto-switching and programmable on/off buttons to simplify the end-user's experience.

SOLUTION
UHBX-SW3-WP + UHBX-R-PSE provide extension and auto-switching without the need for additional equipment. Simple programming ensures the end user never needs to search for a remote.

Parts List - Lecture Classroom Solutions Kit
- UHBX-SW3 (Kit)
  VGA, HDMI, MHL Auto-Switching Wall-Plate with HDBaseT
- SW3-UI
  Auxiliary Keypad Controller
- SW3-UI-VOL
- UHB-SW2 (Kit)
  USB 2.0, VGA & HDMI Auto-Switching Wall-Plate with HDBaseT

Benefits
- Auto-switching with priority
- RS-232 output for control of display

Add-ons:
- SW3-UI - External Keypad Controller
- HD-AUD-IO - Audio Extractor
- VSA-X21 - HDBaseT™ Switching Receiver with 40W Audio Amp

Also Available:
- HDMI, USB, CAT6 Cables
Auditorium Solution Integrated Video, Audio and Control

This solution is designed for medium-sized auditoriums, lecture halls, and larger classrooms where instructors teach from a lectern, and need both projected video and amplified audio. The VSA-X21 provides many integrated features to support a wide range of needs found in a larger educational space.

OPPORTUNITY
Transform an outdated analog system with support for 4K HDMI. Integrate video switching, amplified audio, and control in a compact, simple interface.

SOLUTION
UHBX-SW3-WP and VSA-UI Keypad are installed in a lectern. VSA-X21 provides remote video out, line-level mic in, 50W audio amplification, and a built-in Web GUI.

Benefits
- Intuitive keypad and Web control
- Built-in 50w audio amp with mixing, ducking, and line out
- 100m video extension for larger room
- Priority Page Sensor input

Add-ons:
- HR-4P - Digital I/O & Serial Controller
- AMP-4840 - 40w Audio Amplifier
- CHD-DE46 - 46m HDMI Javelin cable

Parts List - Auditorium Solution Kit
**Dual Room Solution** Independent or Combined

Accordion room dividers are a convenient way to shift between one large learning space, or two smaller ones. The HSM-44-BX matrix provides a convenient way to split or combine video to accommodate the same task. Each sub-room can display independent content or, when needed, show the same content on both displays.

**OPPORTUNITY**
Create a single, unified video switching, extension, and control system for a large room that can be subdivided into two separate classrooms with an accordion room divider.

**SOLUTION**
HSM-44-BX provides two HDMI inputs for each sub-room. UI-IP8-DP keypads and a CNT-IP-2 web controller are programmed for single and dual control. Built-in HDBaseT outputs in the HSM-44-BX extend video to HBX-R Receivers at the projectors.
Benefits

- Control each room separately, or combined
- RS-232 control of projectors through keypad or Web GUI
- Telnet control of HSM-44-BX matrix through keypad or Web GUI

Add-ons:

- AMP-4840 - 40W Audio Amplifier
- CHD-DE46 - 46m HDMI Javelin cable
- SC-3H - HDMI/VGA - Auto-Switching scaler

Also Available: HDMI, USB, CAT6 Cables
Collaborate and Share

Huddle spaces in education promote collaborative learning. Using VERSA-4K encoders and decoders to create a Dynamic Virtual Matrix gives students and instructors unlimited flexibility to work as a team and share with the class. Groups can share between one another, or send to the projector at the front of the room. The instructor can share with a single group or the entire class, all in beautiful 4K video with near-zero latency. An auto-switching scaler allows connection to multiple sources such as a PC, Laptop and Document Camera. USB keyboard and mouse function are also controllable over the network.

OPPORTUNITY
Create multiple huddle spaces, each with a dedicated PC. Allow spaces to share video between groups or with entire class.

SOLUTION
Each huddle uses a pair of VERSA-4K-S and VERSA-4K-R for Video, Keyboard, and Mouse. Software GUI on instructor’s PC controls routing.
Parts List - Learning Lab Kit

**VERSA-4K-S x1**
4K Video Plus USB Extension - Point-to-Point and over LAN
Sender

**VERSA-4K-R x1**
4K Video Plus USB Extension - Point-to-Point and over LAN
Receiver

**SC-3H x1**
HDMI / VGA - Auto-Switching Scaler

*Also Available:* HDMI, USB, CAT6 Cables

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**Benefits**
- Scalable for larger classrooms
- Virtual Matrix - any source to any display
- Instructor can share with any group

**Add-ons:**
- **AMP-4840** - 40W Audio Amplifier
- **CNT-IP-2** - Web GUI Controller
Adding digital signage to a campus, whether it’s news feeds, message boards, event promotions, or schedule changes, gives students access to real-time information in any location. With FHD264 Video over IP extenders, up to 64 different video sources can distribute content to an almost unlimited number of displays.

**OPPORTUNITY**
Replace message walls with digital signage. Distribute multiple video sources across the campus, using existing IT infrastructure.

**SOLUTION**
FHD264-S and FHD264-R encoders and decoders support 1080p video, and can extend over 100m on standard UTP cabling. Use existing IGMP-Enabled network switches.

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**Add-ons:**
- **AMP-4840** - 40W Audio Amplifier
- **CNT-IP-264** - Web GUI Controller
- **FHD-RM** - Rack Mount Shelf, 4 RU

**Also Available:**
- **Parts List - Digital Signage Kit**
  - AV and Control over IP Receiver with Extracted Audio, RS232 over IP & IR
  - **FHD264-R**
  - AV and Control over IP Sender with Loop output, Audio, RS232 over IP & IR
  - **CNT-IP-264**
  - **FHD-RM**
Benefits

- Use existing LAN infrastructure
- Scalable from 1:1 to 64:255 or more
- Create Dynamic Virtual Matrix

Add-ons:

- AMP-4840 - 40W Audio Amplifier
- CNT-IP-264 - Web GUI Controller
- FHD-RM - Rack Mount Shelf, 4 RU

Also Available: HDMI, USB, CAT6 Cables