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Pre-configured AV over IP Systems

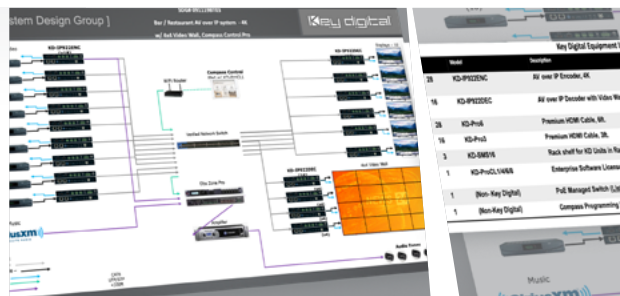


All Key Digital AV over IP systems now ship pre-configured, so you can get out-of-the-box solution.

EXCLUSIVE PLUG AND PLAY AV OVER IP SYSTEM BENEFITS:

1. System Design & BOM

Complete [System Design Questionnaire](#) and receive your optional System Design diagram with Key Digital Bill of Materials based on your customer's system requirements.



2. Pre-Configuration

Pre-configuration of all Encoders and Decoders according to your specifications. Complete our [AVoIP Configuration Questionnaire](#) and submit with P.O. to KD Distributor/Sales Rep.



3. Shelf Mounting

Mounting of desired units using locking washers on [KD-SMS16](#) rack shelving system for a clean and installer-friendly experience.



4. System Verification

In-depth system verification in Key Digital's lab, including matrix switching, video wall functionality, and system control.



5. Network Switch Configuration

[Verify Your Network Switch Compatibility](#) and (optional) ship your network switch for configuration to [Key Digital HQ](#), Attn: AVoIP Network Switch for Configuration.



KD-IP1022ENC

4K UHD AV over IP Encoder with Independent Video, Audio, KVM/USB Routing. Audio De-Embed with Volume, Delay, and Bass/Mid/Treble Control, 2 port PoE LAN Switch, HDMI Pass-through, 3 port IR, RS-232, Trigger Master Controller / Control Gateway.



> ENCODER

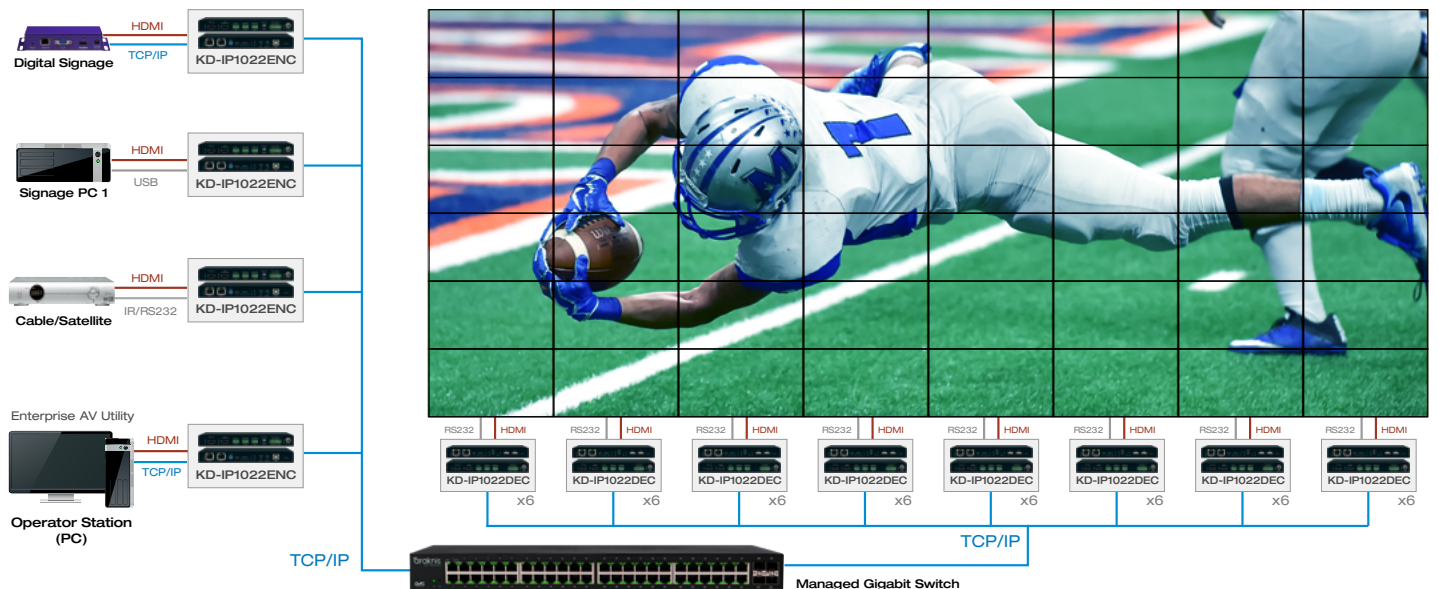


FEATURES

- > **AV Over IP:** Utilizes a managed gigabit network switch to enable video distribution, matrix switching, and extension
- > **Video Wall Processing:** Encoder + Decoder systems create video walls with up to 16 vertical and 16 horizontal monitors
- > **Mosaic Video Wall:** Create decorative video walls using displays of varying sizes and positioning. Begin from templates of popular layouts or easily create fully custom layouts with graphical assistance using KDMS™ Pro software instead of terminal coding.
- > **Independent Switching:** Video, Audio, and USB switching all independently routable routed for multi-layer systems
- > **HDCP 2.2:** Compliancy up to HDCP 2.2 and backward compliant
- > **4K/Ultra HD Resolution:** Support for 4096x2160 or 3840x2160 24/25/30Hz at 4:4:4/8 Bit or 60Hz at 4:2:0/8 Bit (10.2Gbps max bandwidth)
- > **4K Down-scale:** Incoming 4K resolution can be down-converted to 1080p or 720p at each decoder, enabling monitors to display content at optimal resolution at all times
- > **HDR (High Dynamic Range):** HDR is achieved with AppleTV source at 4K/30 [4:2:2] 12bit deep color, enabling more life-like images through a greater range of luminance levels
- > **Audio De-Embedding:** At Encoder and Decoder for ease of integration with audio systems
- > **Audio Pre-Amp:** Variable level settings for volume, muting, EQ, balance, and lip-sync delay per Encoder and Decoder
- > **HDMI Pass-Through (ENC):** Enables connection to local monitor or other AV Devices
- > **Local HDMI Input (DEC):** Creates localized input option ideal for presentation spaces
- > **Installation:** Use KD-SMS16 to cleanly install up to twelve units in rack
- > **Signal Extension:** Up to 330 ft. / 100 m @ 4K 24/25/30(4:4:4)/60(4:2:0) into network switch or point-to-point
- > **Power over Ethernet:** Does not require power supply when integrated with compatible PoE network switch.
- > **Redundant Power Connection:** Added reliability for non-PoE integration.
- > **Data Stream Bandwidth:** < 900Mbps / **Latency:** <40ms at 4K. Less at lower resolution.

- > **Dual LAN:** Built-in switch enables network connectivity & PoE powering of connected devices
- > **USB 2.0:** Supports synchronous and isochronous connections (web cams not supported)
- > **HDMI® and HDCP Licensing:** Fully licensed and compatible with HDCP 2.2 and HDMI latest technology such as 4K/UHD 4:2:0/8bit at 60 f/s
- > **EDID Control:** Internal library features 15 default EDID configurations and native EDID data from Output/Display devices connected to Decoder
- > **Hot Plug Detection Control:** Enables integrator to choose if active signal voltage is forced to connected input devices
- > **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication with source & display, EDID Control handshake, and Hot Plug control
- > **IR Sensor:** Sensor powering via +5V IR In port collects line-of-sight IR from remote(s) without external IR connecting block
- > **Up/Down IR:** Two channels of IR enable control to/from devices connected to the units
- > **RS-232:** Bi-Directional control to/from Encoder and Decoder unit on Phoenix connector
- > **RS-232/TCP-IP Control Mode:** Provides control of unit as well as connectivity status
- > **Lossless compressed digital audio:** Support for Dolby® TrueHD, Dolby® Digital Plus, Dolby Atmos®, and DTS-HD Master Audio™
- > **Control:** 3 multi-function ports may be used as third-party control interface, Compass Control® Pro master controller, control extension via IP, or callable via KeyCode open API
- > **Compass Control® Pro Inside:** Built-in 3 port Compass Control® Pro master controller. KD-ProCL1/2/4/8 Software License required to activate iOS controllers.
- > **Control System Support:** Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- > **KDMS™ Pro Ready:** PC software for unit & system setup and control with optional image preview, video wall management, display control, and external audio pre-amp control
- > **Key Digital® App Ready:** Can be controlled over TCP/IP via Key Digital® iOS App. Network scan & detect populates pre-built GUI including optional image preview, finger drag video wall management, display control via IR or PLink IP, Local input switching, and external audio control.

Digital Video Matrix Digital Video Distribution System Digital Video Switcher **Video Wall Controller** Digital Video Extender KVM Matrix Master Controller



KD-IP1022DEC

4K UHD AV over IP Decoder with Independent Video, Audio, KVM/USB Routing and Video Wall & Mosaic Video Wall Processing. Audio De-Embed with Volume, Delay, and Bass/Mid/Treble Control, 2 port PoE LAN Switch, Local HDMI In, 3 port IR, RS-232, Trigger Master Controller / Control Gateway.



DECODER >

Key Digital PRO
MANAGEMENT SOFTWARE

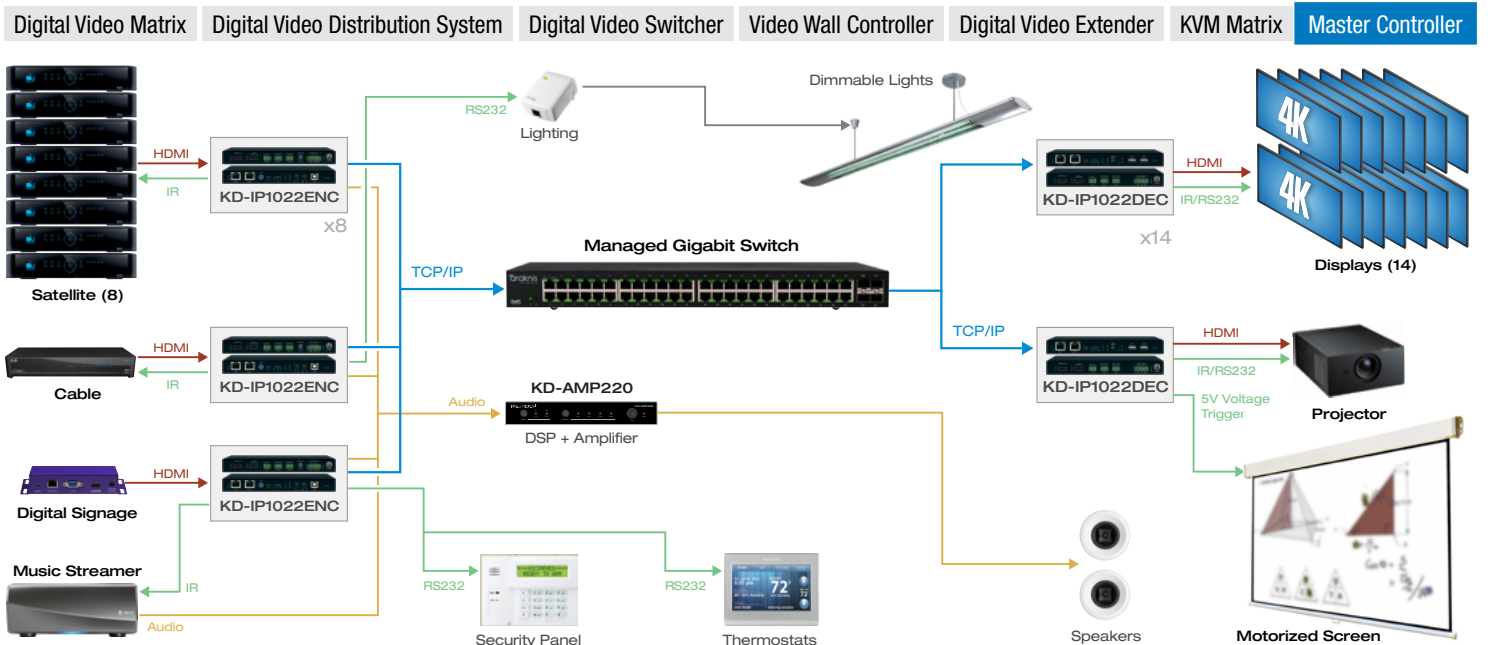
KEY DIGITAL
APP READY

4K

- > **USB 2.0:** Supports synchronous and isochronous connections (web cams not supported)
- > **HDMI® and HDCP Licensing:** Fully licensed and compatible with HDCP 2.2 and HDMI latest technology such as 4K/UHD 4:2:0/8bit at 60 f/s
- > **EDID Control:** Internal library features 15 default EDID configurations and native EDID data from Output/Display devices connected to Decoder
- > **Hot Plug Detection Control:** Enables integrator to choose if active signal voltage is forced to connected input devices
- > **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication with source & display, EDID Control handshake, and Hot Plug control
- > **IR Sensor:** Sensor powering via +5V IR In port collects line-of-sight IR from remote(s) without external IR connecting block
- > **Up/Down IR:** Two channels of IR enable control to/from devices connected to the unit
- > **RS-232:** Bi-Directional control to/from Encoder and Decoder unit on Phoenix connector
- > **RS-232/TCP-IP Control Mode:** Provides control of unit as well as connectivity status
- > **Lossless compressed digital audio:** Support for Dolby® TrueHD, Dolby® Digital Plus, Dolby Atmos®, and DTS-HD Master Audio™
- > **Control:** 3 multi-function ports may be used as third-party control interface, Compass Control® Pro master controller, control extension via IP, or callable via KeyCode open API
- > **Compass Control® Pro Inside:** Built-in 3 port Compass Control® Pro master controller. KD-ProCL1/2/4/8 Software License required to activate iOS controllers.
- > **Control System Support:** Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
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- > **Key Digital® App Ready:** Can be controlled over TCP/IP via Key Digital® iOS App. Network scan & detect populates pre-built GUI including optional image preview, finger drag video wall management, display control via IR or PLink IP, Local input switching, and external audio control.

FEATURES

- > **AV Over IP:** Utilizes a managed gigabit network switch to enable video distribution, matrix AV Over IP: Utilizes a managed gigabit network switch to enable video distribution, matrix switching, and extension
- > **Video Wall Processing:** Encoder + Decoder systems create video walls with up to 16 vertical and 16 horizontal monitors
- > **Mosaic Video Wall:** Create decorative video walls using displays of varying sizes and positioning. Begin from templates of popular layouts or easily create fully custom layouts with graphical assistance using KDMS™ Pro software instead of terminal coding.
- > **Independent Switching:** Video, Audio, and USB switching all independently routable routed for multi-layer systems
- > **HDCP 2.2:** Compliancy up to HDCP 2.2 and backward compliant
- > **4K/Ultra HD Resolution:** Support for 4096x2160 or 3840x2160 24/25/30Hz at 4:4:4/8 Bit or 60Hz at 4:2:0/8 Bit (10.2Gbps max bandwidth)
- > **4K Down-scale:** Incoming 4K resolution can be down-converted to 1080p or 720p at each decoder, enabling monitors to display content at optimal resolution at all times
- > **Audio De-Embedding:** At Encoder and Decoder for ease of integration with audio systems
- > **Audio Pre-Amp:** Variable level settings for volume, muting, EQ, balance, and lip-sync delay per Encoder and Decoder
- > **HDMI Pass-Through (ENC):** Enables connection to local monitor or other AV Devices
- > **Local HDMI Input (DEC):** Creates localized input option ideal for presentation spaces
- > **Signal Extension:** Up to 330 ft. / 100 m @ 4K 24/25/30(4:4:4)/60(4:2:0) into network switch or point-to-point
- > **Power over Ethernet:** Does not require power supply when integrated with compatible PoE network switch.
- > **Redundant Power Connection:** Added reliability for non-PoE integration.
- > **Data Stream Bandwidth:** < 900Mbps / **Latency:** <40ms at 4K. Less at lower resolution.
- > **Installation:** Use KD-SMS16 to install up to twelve KD-IP822/ENC/DEC units in rack
- > **Dual LAN:** Built-in switch enables network connectivity & PoE powering of connected devices



KD-IP922ENC

4K UHD AV over IP Encoder, 2 PoE ports LAN Switch, HDMI Pass-through, Audio In, Audio De-Embedding with Lip-Sync & DSP, KVM/USB



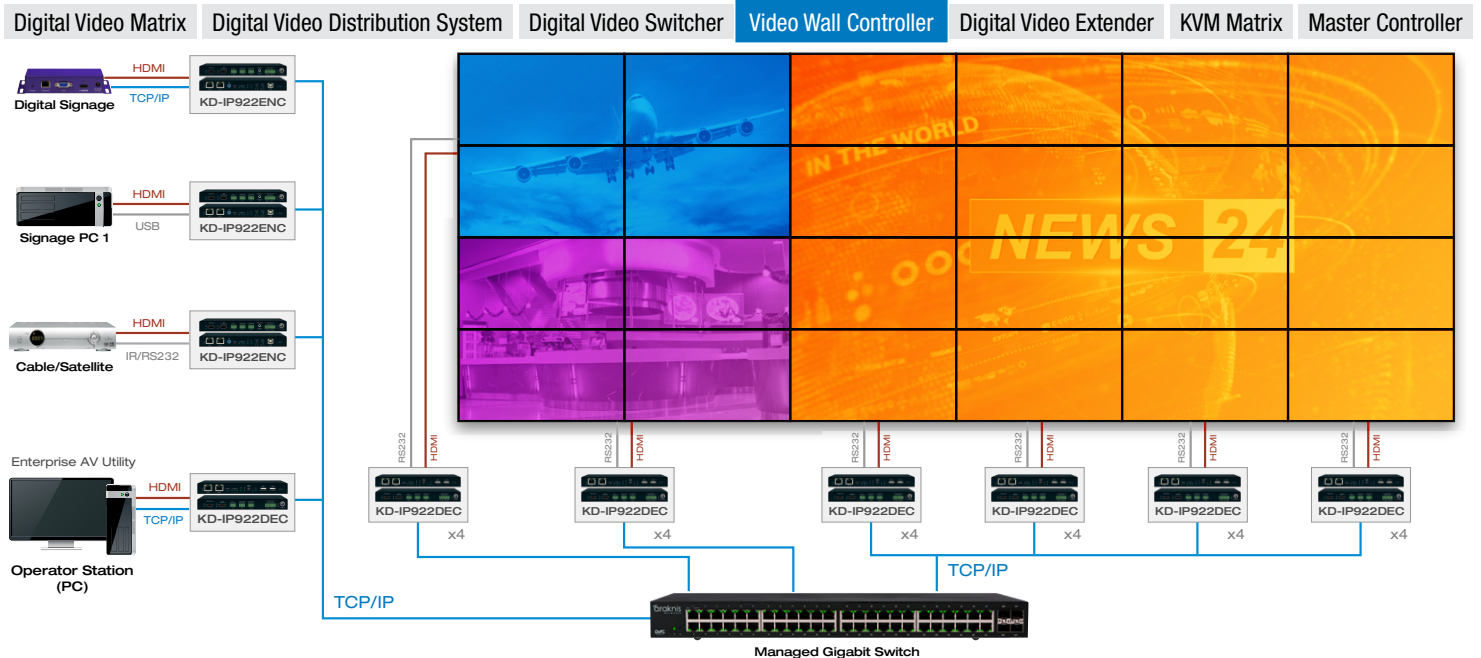
> ENCODER



FEATURES

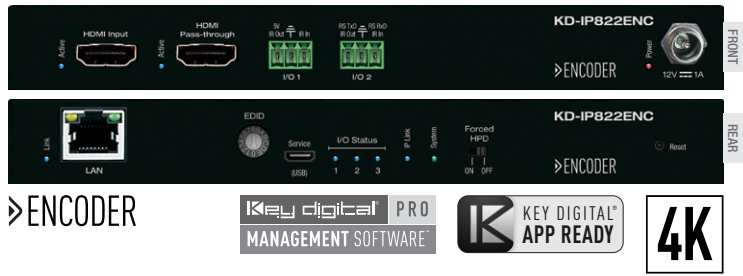
- > **AV Over IP:** Utilizes a managed gigabit network switch to enable video distribution, matrix switching, and extension. [Visit product page for Usage Modes.](#)
- > **Video Wall Processing:** Encoder + Decoder systems create video walls with up to 16 vertical and 16 horizontal monitors
- > **Inter-System Compatibility:** Fully compatible with KD-IP822ENC and DEC units / systems
- > **HDCP 2.2:** Compliancy up to HDCP 2.2 and backward compliant
- > **4K/Ultra HD Resolution:** Support for 4096x2160 or 3840x2160 24/25/30Hz at 4:4:4/8 Bit or 60Hz at 4:2:0/8 Bit
- > **Signal Extension:** Up to 330 ft. / 100 m @ 4K 24/25/30(4:4:4)/60(4:2:0) into network switch or point-to-point
- > **Power over Ethernet:** Does not require power supply when integrated with compatible PoE network switch
- > **Redundant Power Supply:** Added reliability for non-PoE integration
- > **Audio De-Embedding:** Audio from the HDMI input is de-embedded through Analog L/R Balanced/Unbalanced phoenix terminal to enable external audio connectivity with audio distribution systems and amplifiers
- > **Audio DSP:** Volume, muting, 3-band EQ, and lip-sync delay controllable on audio de-embed port
- > **HDMI Pass-Through:** Enables connection to local monitor or additional devices up to 75 ft.
- > **HDMI® and HDCP Licensing:** Fully licensed and compatible with HDCP 2.2 and HDMI latest technology such as 4K/UHD 4:2:0/8bit at 60f/s
- > **Control:** 3 multi-function ports controllable via KeyCode open API, as Compass Control® master controller, or as control extension via IP
- > **USB 2.0:** Supports synchronous and isochronous connections
- > **Dual LAN:** Built-in two port switch provides network to connected device without an additional home-run cable
- > **EDID Control:** Internal library features 15 default EDID configurations and native EDID data from Output/Display devices connected to Decoder

- > **Hot Plug Detection Control:** Enables integrator to choose if active signal voltage is forced to connected input devices
- > **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication with source & display, EDID Control handshake, and Hot Plug control
- > **IR Sensor:** Sensor powering via +5V IR In port collects line-of-sight IR from remote(s) without external IR connecting block
- > **Up/Down IR:** Two channels of IR enable control to/from devices connected to Encoder and Decoder units
- > **RS-232:** Bi-Directional control to/from Encoder and Decoder unit on Phoenix connector
- > **RS-232/TCP-IP Control Mode:** Provides control of unit as well as connectivity status
- > **Lossless compressed digital audio:** Support for Dolby® TrueHD, Dolby® Digital Plus, Dolby Atmos®, and DTS-HD Master Audio™
- > **Required Network Cabling:** CAT6 UTP/STP, CAT6A, CAT7. Shielded cabling requires shielded RJ45 connectors on both ends.
- > **Control System Support:** Key Digital® app ready. Key Digital Management Software™ Pro (KDMS™ Pro) ready, Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- > **KDMS™ Pro Ready:** PC software for unit & system setup and control UI with clean End-User mode option including optional image preview, mouse-drag video wall management, display control via IR, Local input switching, and external audio pre-amp control
- > **Key Digital® App Ready:** Can be controlled over TCP/IP via Key Digital® iOS App. Network scan & detect populates pre-built GUI including optional image preview, finger drag video wall management, display control via IR or PLink IP, Local input switching, and external audio control.
- > **Compass Control® Pro Inside:** Built-in 3 port Compass Control® Pro master controller. KD-ProCL1/2/4/8 Software License required to activate iOS controllers.
- > **Data Stream Bandwidth:** < 900Mbps
- > **Latency:** <40ms at 4K



KD-IP822ENC

4K UHD AV over IP Encoder, PoE, HDMI Pass-Thru,
2x IR/RS-232 ports



- » **IR Sensor:** Sensor powering via +5V IR In port collects line-of-sight IR from remote(s) without external IR connecting block
- » **Up/Down IR:** Two channels of IR enable control to/from devices connected to Encoder and Decoder units
- » **RS-232:** Bi-Directional control to/from Encoder and Decoder unit on Phoenix connector
- » **RS-232/TCP-IP Control Mode:** Provides control of unit as well as connectivity status
- » **Lossless compressed digital audio:** Support for Dolby® TrueHD, Dolby® Digital Plus, Dolby Atmos®, and DTS-HD Master Audio™
- » **Required Network Cabling:** CAT6 UTP/STP, CAT6A, CAT7. Shielded cabling requires shielded RJ45 connectors on both ends.
- » **Control System Support:** Key Digital® app ready. Key Digital Management Software™ Pro (KDSM™ Pro) ready, Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- » **KDSM™ Pro Ready:** PC software for unit & system setup and control UI with clean End-User mode option including optional image preview, mouse-drag video wall management, display control via IR, Local input switching, and external audio pre-amp control
- » **Key Digital® App Ready:** Can be controlled over TCP/IP via Key Digital® iOS App. Network scan & detect populates pre-built GUI including optional image preview, finger drag video wall management, display control via IR or PLink IP, Local input switching, and external audio control.
- » **Data Stream Bandwidth:** < 900Mbps
- » **Latency:** <40ms at 4K

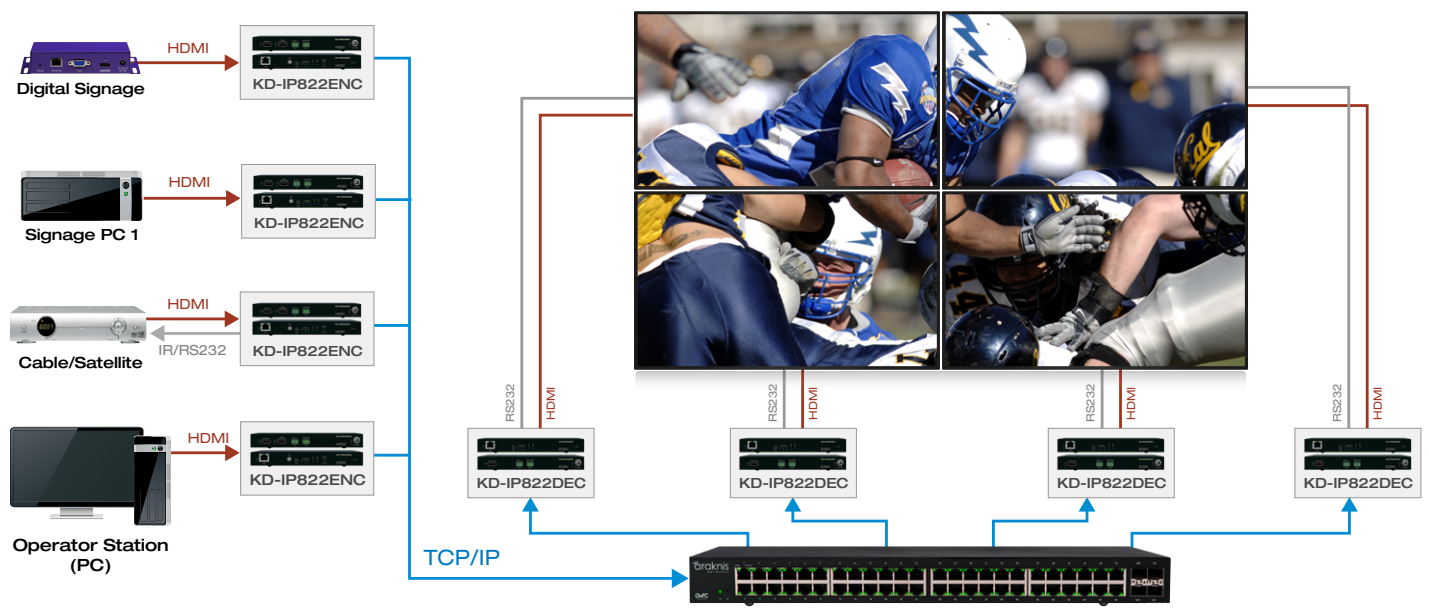
SPECIFICATIONS

- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal
- » Product (Each): 7.5" x 5.59" x 0.85", Weight: 0.7 lbs

FEATURES

- » **AV over IP:** Utilizes a managed gigabit network switch to enable video distribution, matrix switching, and extension
- » **Inter-System Compatibility:** Fully compatible with KD-IP922ENC and DEC units / systems
- » **Video Wall Processing:** Encoder + Decoder systems create video walls with up to 16x16, 256 total maximum displays.
- » **Control:** 2 multi-function ports may be used as third-party control interface, Compass Control® Pro master controller, control extension via IP, or callable via KeyCode open API
- » **HDCP 2.2:** Compliancy up to HDCP 2.2 and backward compliant
- » **4K/Ultra HD Resolution:** Support for 4096x2160 or 3840x2160 24/25/30Hz at 4:4:4/8 Bit or 60Hz at 4:2:0/8 Bit
- » **4K Down-scale:** Incoming 4K resolution can be down-converted to 1080p or 720p at each decoder, enabling monitors to display content at optimal resolution at all times
- » **Signal Extension:** Up to 330 ft. / 100 m @ 4K 24/25/30(4:4:4)/60(4:2:0) into network switch or point-to-point
- » **Power over Ethernet:** Does not require power supply when integrated with compatible PoE network switch
- » **Redundant Power Connection:** Added reliability for non-PoE integration. Power supply sold separately
- » **Data Stream Bandwidth:** < 900Mbps / Latency: <40ms at 4K
- » **Installation:** Use KD-SMS16 to cleanly install up to twelve KD-IP822ENC/DEC units in rack
- » **HDMI® and HDCP Licensing:** Fully licensed and compatible with HDCP 2.2 and HDMI latest technology such as 4K/UHD 4:2:0/8bit at 60 f/s
- » **EDID Control:** Internal library features 15 default EDID configurations and native EDID data from Output/Display devices connected to Decoder
- » **Hot Plug Detection Control:** Enables integrator to choose if active signal voltage is forced to connected input devices
- » **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication with source & display, EDID Control handshake, and Hot Plug control

Digital Video Matrix Digital Video Distribution System Digital Video Switcher **Video Wall Controller** Digital Video Extender Master Controller



KD-IP822DEC

4K UHD AV over IP Decoder, PoE, 2x IR/RS-232 control ports



DECODER >

Key digital PRO
MANAGEMENT SOFTWARE

KEY DIGITAL
APP READY

4K

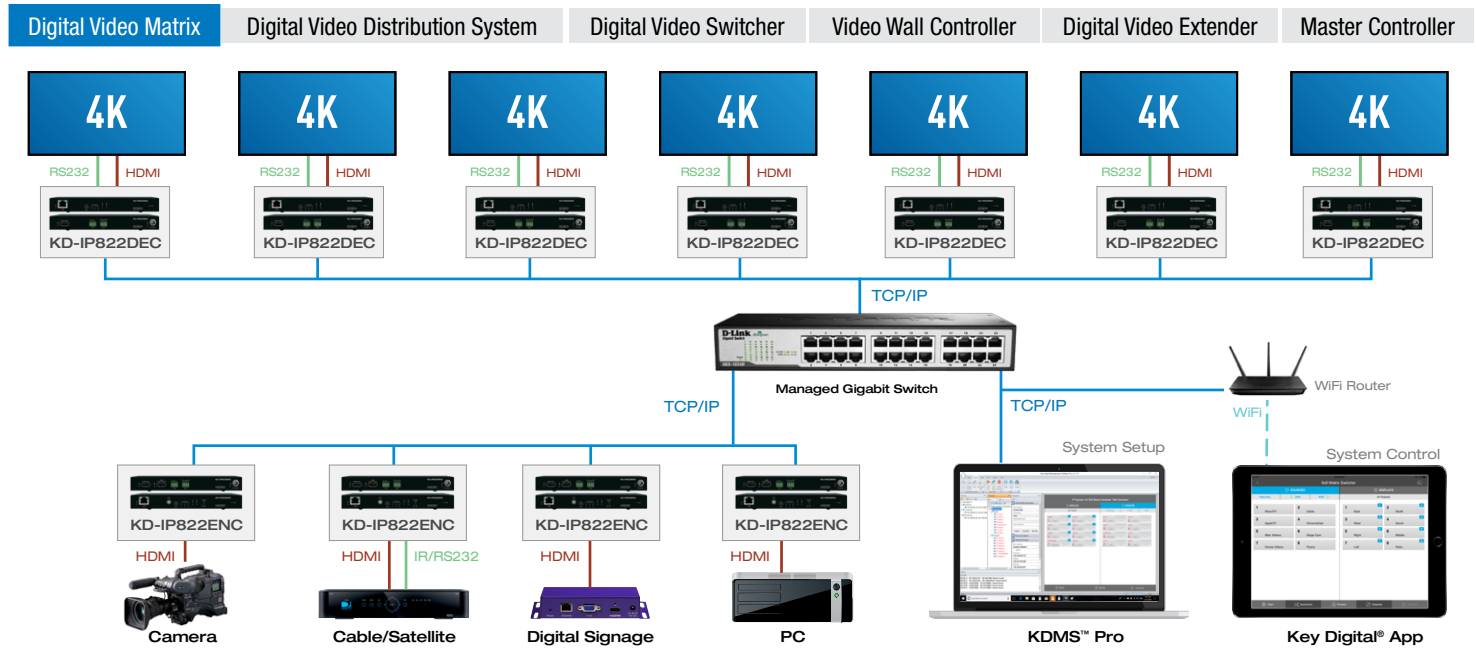
FEATURES

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- > **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication with source & display, EDID Control handshake, and Hot Plug control

- > **IR Sensor:** Sensor powering via +5V IR In port collects line-of-sight IR from remote(s) without external IR connecting block
- > **Up/Down IR:** Two channels of IR enable control to/from devices connected to Encoder and Decoder units
- > **RS-232:** Bi-Directional control to/from Encoder and Decoder unit on Phoenix connector
- > **RS-232/TCP-IP Control Mode:** Provides control of unit as well as connectivity status
- > **Lossless compressed digital audio:** Support for Dolby® TrueHD, Dolby® Digital Plus, Dolby Atmos®, and DTS-HD Master Audio™
- > **Required Network Cabling:** CAT6 UTP/STP, CAT6A, CAT7. Shielded cabling requires shielded RJ45 connectors on both ends.
- > **Control System Support:** Key Digital® app ready. Key Digital Management Software™ Pro (KDMS™ Pro) ready, Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- > **KDMS™ Pro Ready:** PC software for unit & system setup and control UI with clean End-User mode option including optional image preview, mouse-drag video wall management, display control via IR, Local input switching, and external audio pre-amp control
- > **Key Digital® App Ready:** Can be controlled over TCP/IP via Key Digital® iOS App. Network scan & detect populates pre-built GUI including optional image preview, finger drag video wall management, display control via IR or PLink IP, Local input switching, and external audio control.
- > **Data Stream Bandwidth:** < 900Mbps
- > **Latency:** <40ms at 4K

SPECIFICATIONS

- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal
- » Product (Each): 7.5" x 5.59" x 0.85", Weight: 0.7 lbs



KD-IP1080Tx

HDMI over IP with POE (Tx) Transmitter with Redundant Power Connection, HDMI Pass-through



KD-IP1080Rx

HDMI over IP with POE (Rx) Receiver with Redundant Power Connection



KEY FEATURES

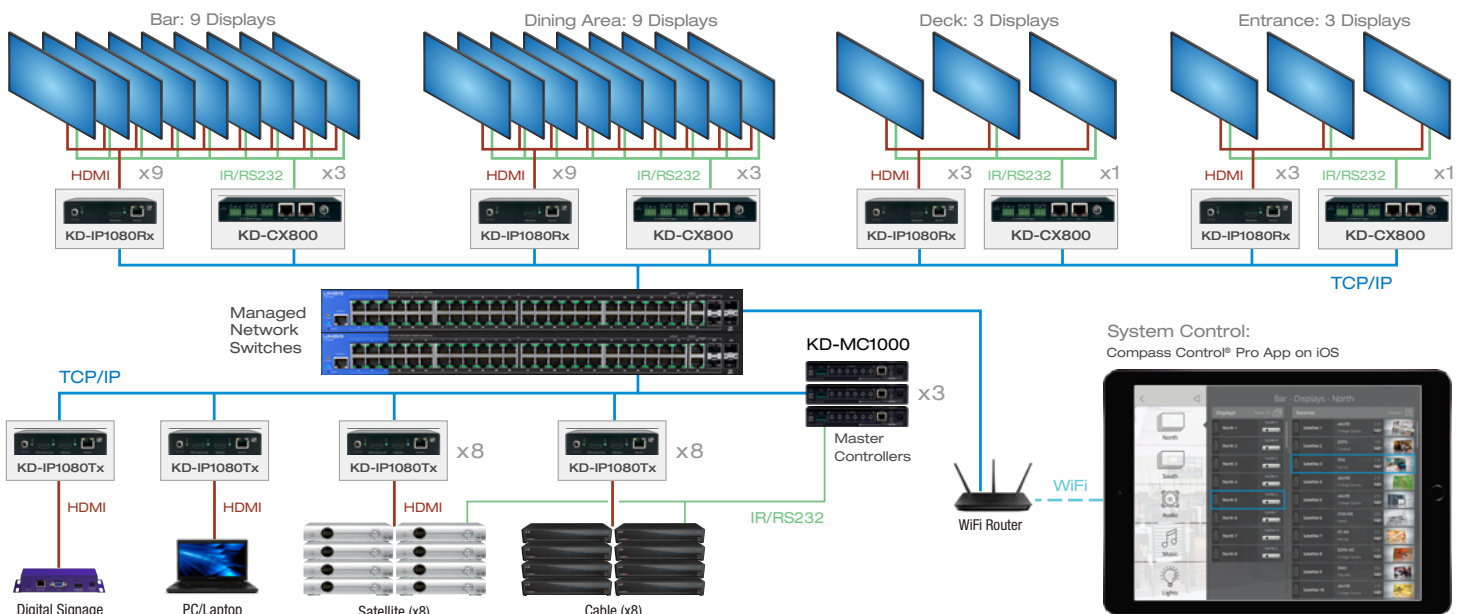
- **Connectivity:** Can be connected through a network IP switch or point-to-point
- **H.264 Compression:** Ideal standard for large video distribution applications
- **Low-bandwidth System:** Supports managed 100BaseT or Gigabit network switches
- **Power Over Ethernet:** Carry power to Tx and Rx units with a Power Over Ethernet enabled Smart Managed Switch
- **Custom System:** Add Tx and Rx extenders to an existing system to expand it up to 1024 Tx units and unlimited amount of Rx units
- **Alternative Extension Methods:** Enabled by low-bandwidth data streaming technology
 - Wifi Extender: **Up to 100 ft.**
 - IP over Coaxial: **Up to 1000 ft.**
- **Web Control Interface:** Reduces installation time and provides basic video setup.
- **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, and EDID Control handshake
- **Resolution Support:** Supports up to 1080p@60 (2.25Gbps) and compatible with DV1.0/HDMI/HDCP1.x
- **HDMI Pass-through:** Tx unit support HDMI Pass-through to receive video or extract audio on the transmit side
- **Redundant Power Supply:** Added reliability and for non-PoE integration
- **Audio Format:** Supports 2ch PCM at 44.1/48kHz
- **A/V Bitrate:** Supports Stream Bitrate up to 15Mbps.

- **EDID:** EDID libraries readily available to provide the best setup per source
- **Deep Color Support:** Up to 12 bits/color
- **TMDS re-clocking:** Support for long HDMI runs using Key Digital® HDMI cables
- **Licensing:** Fully licensed and compatible with all HDMI and HDCP technologies
- **Control System Support:** Key Digital® app ready. Key Digital Management Software™ Pro (KDMS™ Pro) ready, Compass Control® Pro ready. Fully controllable by RS-232 supported control systems via open API.
- **Key Digital® App Ready:** Can be controlled over TCP/IP via Key Digital® iOS App
- **Source/Display Control:** Integrate with KD-CX800 to add 3 IR, RS-232 or Trigger ports

SPECIFICATIONS

- Tx Input: 1 HDMI Connector, Type A, 19 Pin Female
- Tx Output: 1 HDMI Connector, Type A, 19 Pin Female; 1 CAT5e/6 on RJ45
- Rx Input: 1 CAT5e/6 on RJ45
- Tx Output: 1 HDMI Connector, Type A, 19 Pin Female
- POE Power Consumption: ≤ 6 watts per unit
- Regulation: CE, RoHS, WEEE, EAC
- Enclosure: Black Metal
- Rack Mount: 3U with KD-RK120PLT bracket (sold separately)
- Product (Each): 4.74" x 3.11" x 1.16", Weight: 0.6 lbs
- Packaging: 6.2" x 4.2" x 3.7"; Weight 2 lbs

HDMI OVER IP SYSTEM WITH CONTROL EXTENSION



KD-BYOD4K

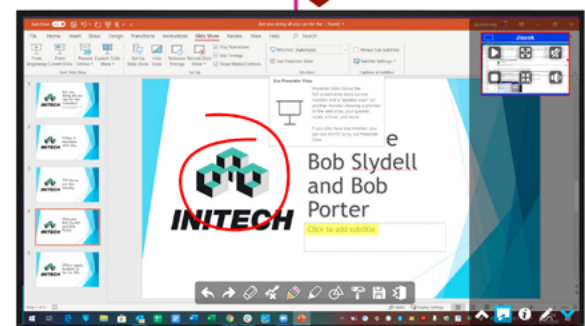
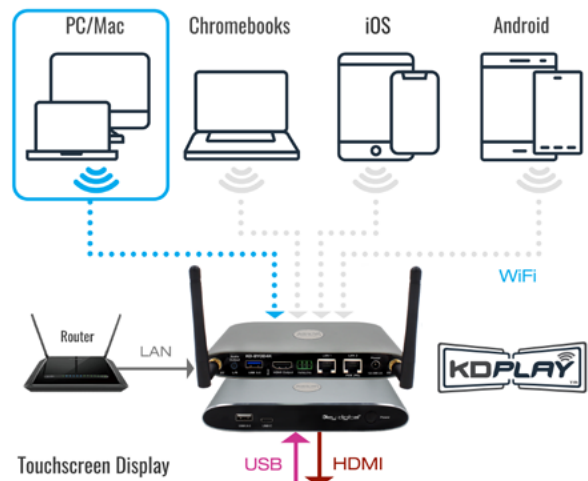
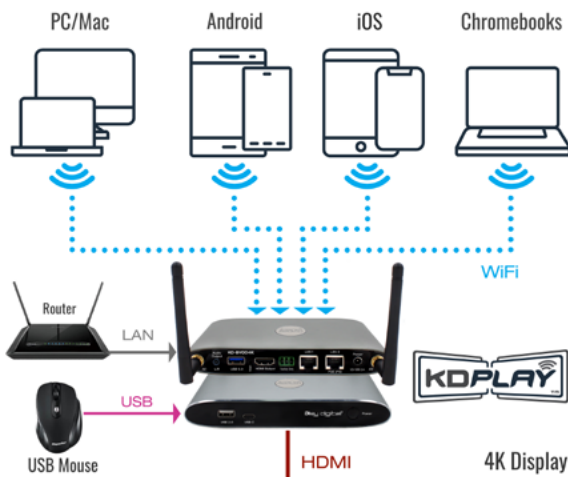
4K KDPlay Wireless Presentation Gateway for PC, Mac, iOS, Android and Chrome OS devices. Full and Multi-Presenter Viewing Modes. Screen Mirroring via LAN or WiFi with built-in Antenna. Power over Ethernet, HDMI and Analog Audio Output, USB Keyboard, Mouse, and Annotation Control.

FEATURES

- > **Wireless Presentation Gateway:** Connect via WiFi to wirelessly cast content from device
- > **Bring Your Own Device:** Cast from Windows and Mac computers or Android devices using KDPlay™ software and app. Cast from iOS devices with AirPlay. Cast from Chrome OS using Chrome browser tool for tab or desktop.
- > **Smooth Video:** Glitch-free AV experience due to optimizations for video content
- > **Multi-Presenter Mode:** Up to four presenters may share content at same time with auto adjusting screen layout. User preference layout setup for three or four presenters allows for optimal window placement based on usage.
- > **Easy Connection:** Up to 16 simultaneous devices may connect, with access always provided to new connecting devices and automatic disconnect of oldest non-casting devices in case of maximum being reached
- > **KDPlay™ Flash Included:** Software auto-launcher with USB and USB-C connections. Additional KDPlay™ Flash sold separately.
- > **4K/UHD Source & Display:** Supports incoming signals and outputs at 4K/UHD for optimal clarity of spreadsheets and data content
- > **Annotation and White Board:** Screen overlay tools for real-time collaboration. Screen captures are downloaded by QR code or in web browser.
- > **Extended Monitor:** Feature enables dual display setups such as video conference and presentation content view on side-by-side panels
- > **WiFi Direct or LAN Connection:** May act as the wireless access point, or may be accessed by devices via the connected network
- > **Content Preview:** Collapsible dock on side of display provides preview thumbnail and name of devices casting via KDPlay app

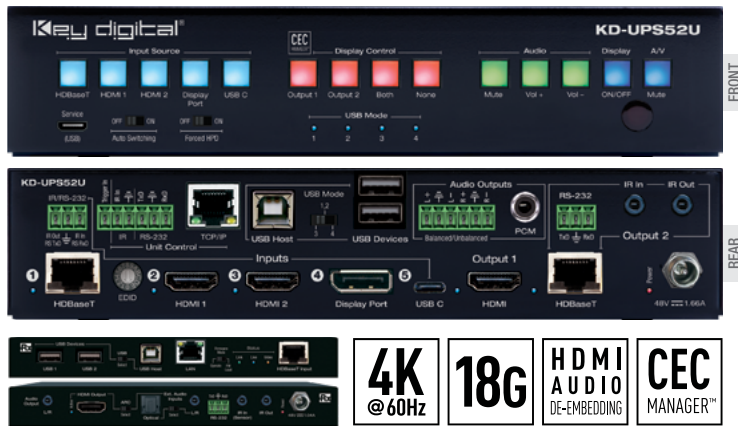


- > **Touch Screen / Mouse Forwarding:** Connect touchscreen or mouse USB to unit to point and click on casted device
- > **Moderator Management:** Administrator may start & stop device casting via web control page
- > **Web GUI Administration:** Access unit setup, moderator, and security tools on web browser through LAN
- > **Four-Level Security:** Including casting / pairing pin and Device-type permission options, AES-256 + RSA-1024 encryption
- > **Simultaneous Secure Dual Network:** Two network ports enable concurrent connection to Public and Private networks for ease of guest access without compromising security
- > **Video Resolution:** Selectable 4K 3840x2160 @ 30fps or 60fps [4:2:0] 10.2Gbps, 1920x1080p @ 60fps, 1280x800p @ 60fps, 1280x720p @ 60fps output resolution options based on EDID from connected display.
- > **Audio De-embedding:** Audio of the casted device is de-embedded at the unit's analog L/R audio connector for ease of integrating with audio amplification and mixing systems



KD-UPS52U

4K/18G USB/Universal Presentation Switcher with 5 Inputs (HDBT, 2x HDMI, DP, USB-C), 2 Mirrored Outputs (HDBT, HDMI), LAN, ARC, Audio De-Embed, IR, RS-232, IP Control, CEC Manager™. Includes Rx. KD-App and KDPlug & Present™ Ready.



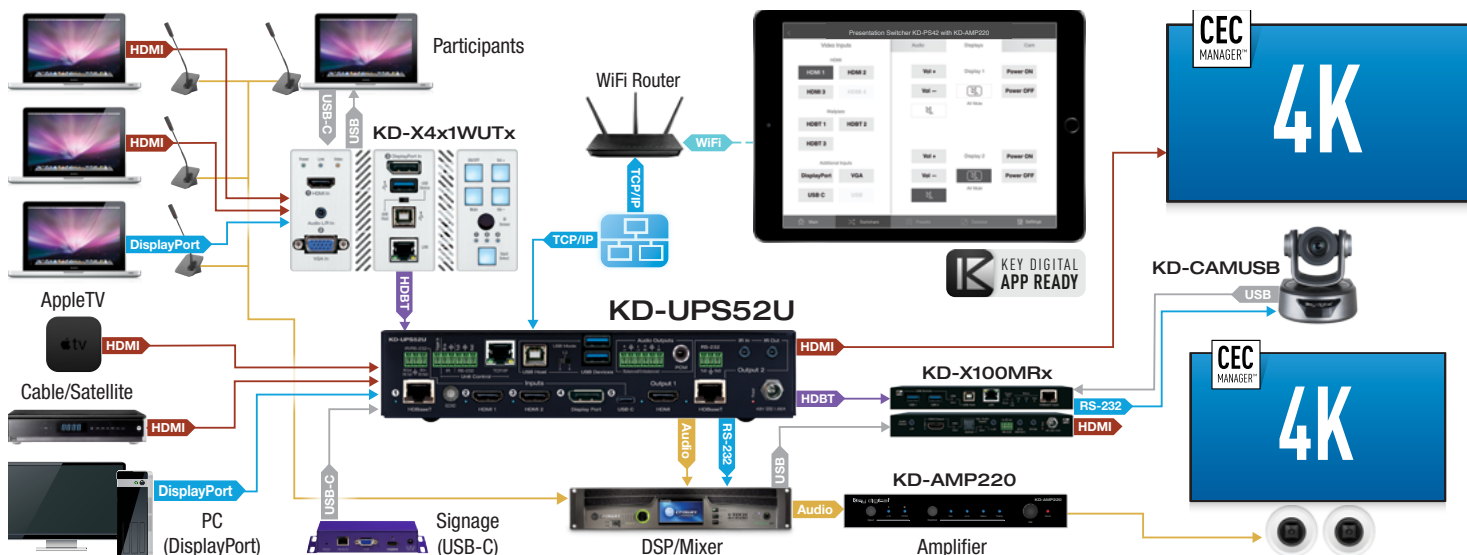
- » **Presentation Switcher Kit:** Includes KD-UPS52U and KD-X100MRx. Add KD-X4x1WUTx wall plate HDBaseT Tx for plug-in on walls, floor and table boxes
- » **Presentation Switching:** 1 HDBaseT, 2 HDMI, 1 Display Port, 1 USB-C source selection by push button, IP, RS-232, IR, auto switching, or trigger control.
- » **Soft-Codec & KVM Enabling System:** USB Host + Device ports create connectivity hub for professional USB cameras and microphones, audio DSP, keyboard, mouse, or touchscreen display with connected computer
- » **PTZ USB Camera Integration:** Integrates natively with KD-CAMUSB for full PTZ control via KD-App and more
- » **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- » **Signal Extension:** For resolution and cable quality
 - » 4K/UHD (18G): Up to 100m / 328ft
 - » 1080p: Up to 150m / 492ft
- » **Auto-Sensing:** Automatic selection of newly detected source and switching from newly disconnected source when enabled
- » **CEC Manager™:** Power, volume, and muting controls of the connected display/projector without any additional control wiring. Selection of desired CEC command recipient.
- » **Audio De-embedding:** Audio of the selected source is de-embedded at the unit's analog L/R balanced/unbalanced and PCM digital audio connectors
- » **KD-AMP220 Control Mode:** Command forward to KD-AMP220 for an all-in-one user-friendly control UI of video switching, audio and speech enforcement
- » **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- » **HDR10 & Dolby Vision:** More life-like images through a greater range of luminance levels
- » **Power Over HDBaseT:** Rx unit (included) and wall plate Tx unit (sold separately) powered by KD-UPS52U
- » **Installation:** Half-rack width with rack mounting ears included
- » **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- » **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, EDID Control handshake, and Hot Plug Detection Voltage
- » **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the Rx display/device
- » **RS-232:** Bi-Directional control to/from Tx and Rx/Presentation Switch unit
- » **Unit Control Mode:** Provides TCP/IP and RS-232 control and status of/from Tx unit
- » **Lossless compressed digital audio:** Support for Dolby® TrueHD, Dolby® Digital Plus, Dolby Atmos®, and DTS-HD Master Audio™
- » **Control System Support:** Key Digital® App ready. Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- » **KD-App Ready:** Network scan & detect populates pre-built GUI including connected display/projector controls via CEC Manager™

SPECIFICATIONS

- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal / 1U Rack
- » Product: 8.26 x 7.2 x 1.73" (210 x 183.4 x 44.4mm); Weight: 2 lbs
- » Packaging: 15.2" x 9" x 3.9" (385 x 230 x 100 mm); Weight: 3.5 lbs

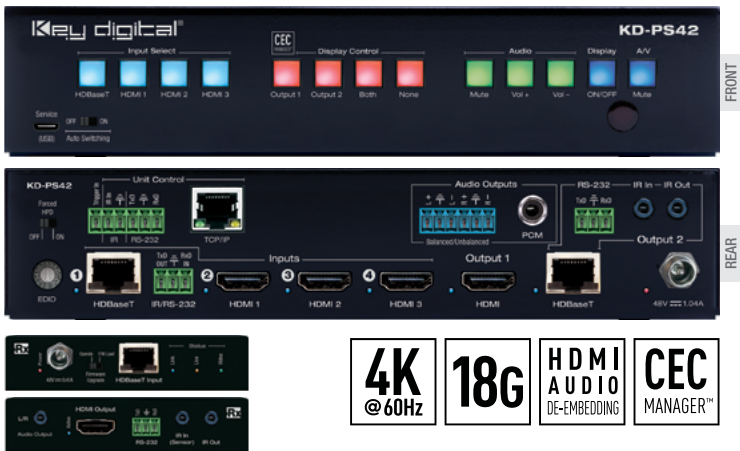


SYSTEM EXAMPLE



KD-PS42

4K/18G Presentation Switcher with 4 Inputs (HDBT, 3x HDMI), 2 Mirrored Outputs (HDBT, HDMI), Audio De-Embed, IR, RS-232, IP, CEC Manager™. Includes Rx. KD-App and KDPlug & Present™ Ready.



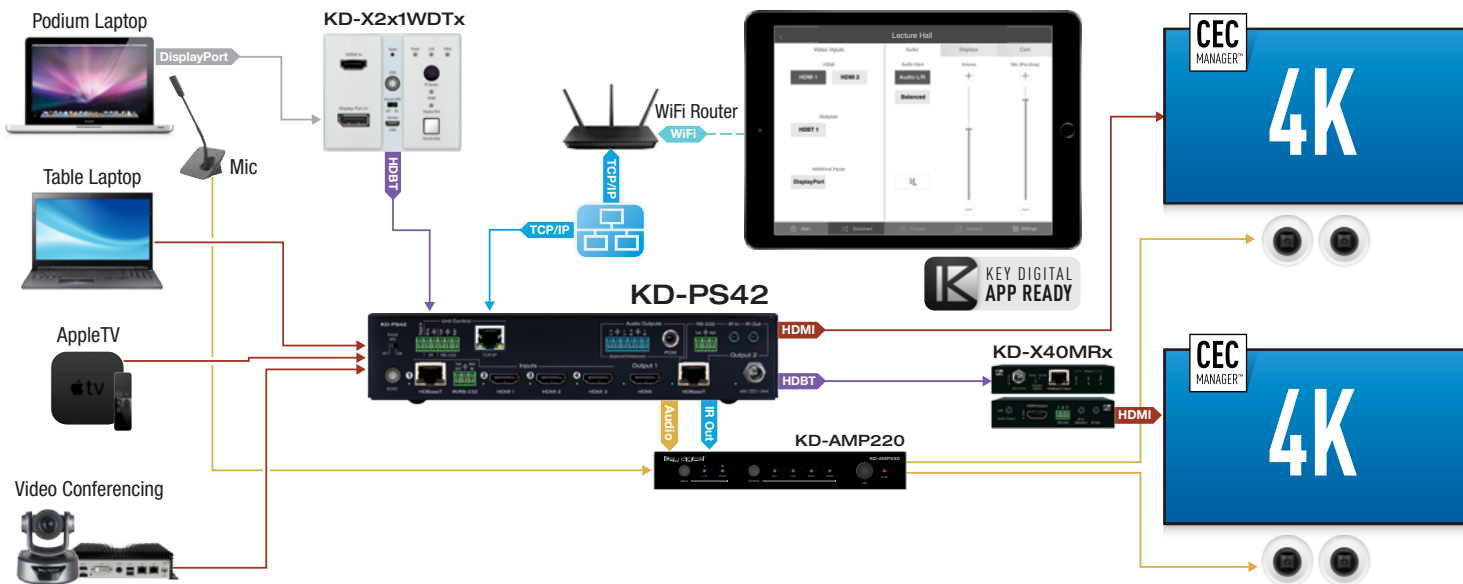
- » **Presentation Switcher Kit:** Includes KD-PS42 and KD-X40MRx. Add KD-X2x1WDTx wall plate HDBaseT transmitter for plug-in on walls, floor and table boxes
- » **Presentation Switching:** 3 HDMI, 1 HDBaseT source selection by push button, IP, RS-232, IR, auto switching, or trigger control.
- » **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- » **Signal Extension:** For resolution and cable quality
 - » 4K/UHD (18G): Up to 100m / 328ft
 - » 1080p: Up to 150m / 492ft
- » **Auto-Sensing:** Automatic selection of newly detected source and switching from newly disconnected source when enabled
- » **CEC Manager™:** Power, volume, and muting controls of the connected display/projector without any additional control wiring. Selection of desired CEC command recipient.
- » **Audio De-embedding:** Audio of the selected source is de-embedded at the unit's analog L/R balanced/unbalanced and PCM digital audio connectors
- » **KD-AMP220 Control Mode:** Command forward to KD-AMP220 for an all-in-one user-friendly control UI of video switching, audio and speech enforcement
- » **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- » **HDR10 & Dolby Vision:** More life-like images through a greater range of luminance levels
- » **Power Over HDBaseT:** Rx unit (included) and wall plate Tx unit (sold separately) powered by KD-PS42
- » **Installation:** Half-rack width with rack mounting ears included
- » **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- » **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, EDID Control handshake, and Hot Plug Detection Voltage
- » **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the Rx display/device
- » **RS-232:** Bi-Directional control to/from Tx and Rx/Presentation Switch unit
- » **Unit Control Mode:** Provides TCP/IP and RS-232 control and status of/from Tx unit
- » **Lossless compressed digital audio:** Support for Dolby® TrueHD, Dolby® Digital Plus, Dolby Atmos®, and DTS-HD Master Audio™
- » **Control System Support:** Key Digital® App ready. Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- » **KD-App Ready:** Network scan & detect populates pre-built GUI including connected display/projector controls via CEC Manager™

SPECIFICATIONS

- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal / 1U Rack
- » Product: 8.26 x 7.2 x 1.73" (210 x 183.4 x 44.4mm); Weight: 2 lbs
- » Packaging: 15.2" x 9" x 3.9" (385 x 230 x 100 mm); Weight: 3.5 lbs

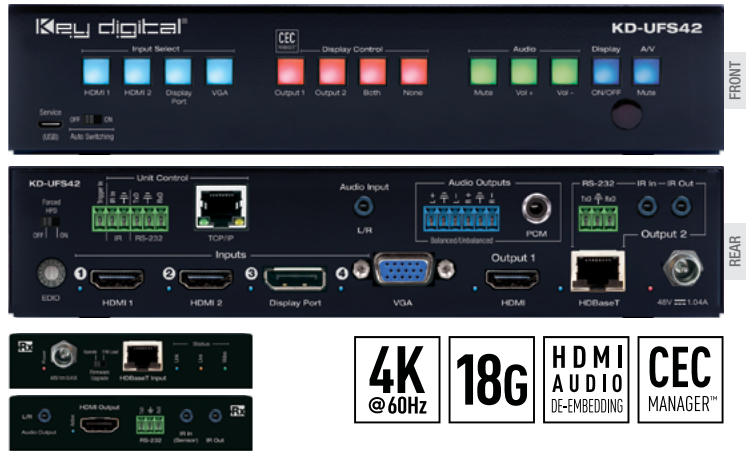


SYSTEM EXAMPLE



KD-UFS42

4K 18G (40m) Universal Format Switcher with 4 Inputs (2x HDMI, DP, VGA), HDMI and HDBaseT Mirrored Outputs with Rx Included, Audio De-Embed, CEC Display Control, Auto Switching. KD-App and KDPlug & Present™ Ready.



- » **RS-232:** Bi-Directional control to/from Tx and Rx/Presentation Switch unit
- » **Unit Control Mode:** Provides TCP/IP and RS-232 control and status of/from Tx unit
- » **Ease of Integration:** Complete configuration using Key Digital Management Software™ Pro
- » **Installation:** Half-rack width with rack mounting ears included
- » **Audio De-embedding:** Audio of the selected source is de-embedded at the unit's analog L/R balanced/unbalanced and PCM digital audio connectors
- » **Lossless compressed digital audio:** Support for Dolby® TrueHD, Dolby® Digital Plus, Dolby Atmos®, and DTS-HD Master Audio™
- » **Control System Support:** Key Digital® App ready. Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- » **KD-App Ready:** Network scan & detect populates pre-built GUI including connected display/projector controls via CEC Manager™

SPECIFICATIONS

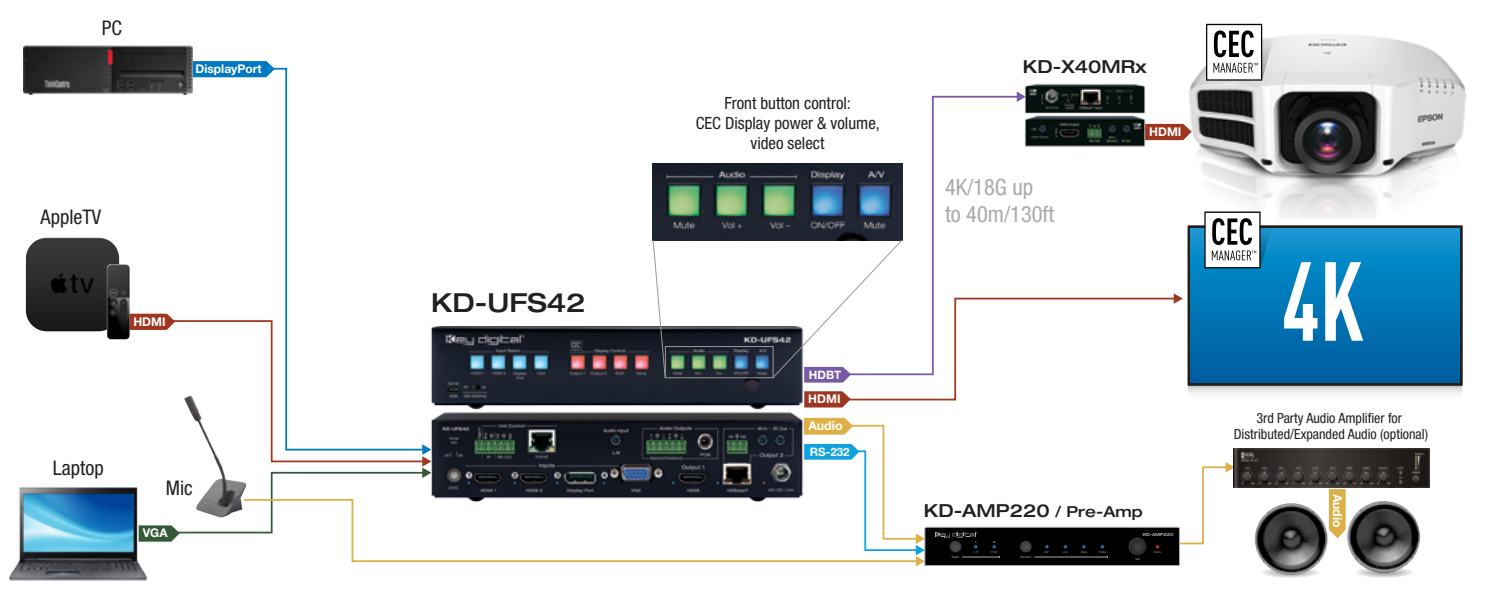
- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal / 1U Rack
- » Product: 8.26 x 7.2 x 1.73" (210 x 183.4 x 44.4mm); Weight: 2 lbs
- » Packaging: 15.2" x 9" x 3.9" (385 x 230 x 100 mm); Weight: 3.5 lbs



KEY FEATURES

- » **Presentation Switcher Kit:** Includes KD-UFS42 and KD-X40MRx
- » **Presentation Switching:** 2 HDMI, 1 Display Port, and 1 VGA + L/R audio source selection by push button, IP, RS-232, IR, auto switching, or trigger control
- » **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- » **Signal Extension:** For resolution and cable quality
 - » 4K/UHD (18G): Up to 100m / 328ft
 - » 1080p: Up to 150m / 492ft
- » **Auto-Switching:** Automatic selection of newly detected source and switching from newly disconnected source when enabled
- » **CEC Manager™:** Power, volume, and muting controls of the connected display/projector without any additional control wiring. Selection of desired CEC command recipient
- » **KDPlug & Present™ Ready:** Add KD-CX800 to build a programming-free automation system
- » **PTZ USB Camera Integration:** Integrates natively with KD-CAMUSB for full PTZ control via KD-App and more
- » **KD-AMP220 Control Mode:** Command forward to KD-AMP220 for an all-in-one user-friendly control UI of video switching, audio and speech enforcement
- » **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- » **HDR10 & Dolby Vision:** More life-like images through a greater range of luminance levels
- » **Power Over HDBaseT:** Rx unit (included) and wall plate Tx unit (sold separately) powered by KD-UFS42
- » **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- » **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, EDID Control handshake, and Hot Plug Detection Voltage
- » **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the Rx display/device

SYSTEM EXAMPLE



KD-X4x1WUTx

4x1 4K/18G 100m HDBT PoH Wall Plate Switcher with 2x HDMI, DP, USB-C, USB, LAN, ARC, Audio De-Embed, IR, RS-232, IP Control, CEC Manager™. Transmitter Only.

KEY FEATURES

- ▶ **Presentation Switching:** 2 HDMI, 1 Display Port, and 1 USB-C source selection by push button or IP control.
- ▶ **Rx Options:** Native integration with KD-X100MRx black box HDBaseT Rx, KD-UPS52U and KD-UPS72U Presentation Switchers. Other Rx options available.
- ▶ **Soft-Codec & KVM Enabling System:** USB Host + Device ports create connectivity hub for professional USB cameras and microphones, audio DSP, keyboard, mouse, or touchscreen display with connected computer
- ▶ **PTZ USB Camera Integration:** Marries natively with KD-CAMUSB for full PTZ control via KD-App and more
- ▶ **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- ▶ **Auto-Sensing:** Automatic selection of newly detected source and switching from newly disconnected source when enabled
- ▶ **CEC Manager™:** Power, volume, and muting controls of the connected displays/projectors without any additional control wiring.
- ▶ **Audio De-embedding:** Audio of the selected source is de-embedded at the unit's analog L/R balanced/unbalanced connector
- ▶ **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- ▶ **HDR10 & Dolby Vision:** More life-like images through a greater range of luminance levels
- ▶ **Power Over HDBaseT:** Wall-plate unit powered by Rx/Presentation Switch unit
- ▶ **Installation:** Tx unit designed for installation in standard US three-gang box
- ▶ **Signal Extension:** For resolution and cable quality
 - » 4K/UHD (18G): Up to 100m / 328ft
 - » 1080p: Up to 150m / 492ft
- ▶ **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- ▶ **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, EDID Control handshake, and Hot Plug Detection Voltage
- ▶ **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the Rx display/device
- ▶ **IR Sensor:** Wall-plate collects line-of-sight IR from remote(s) without external IR wiring



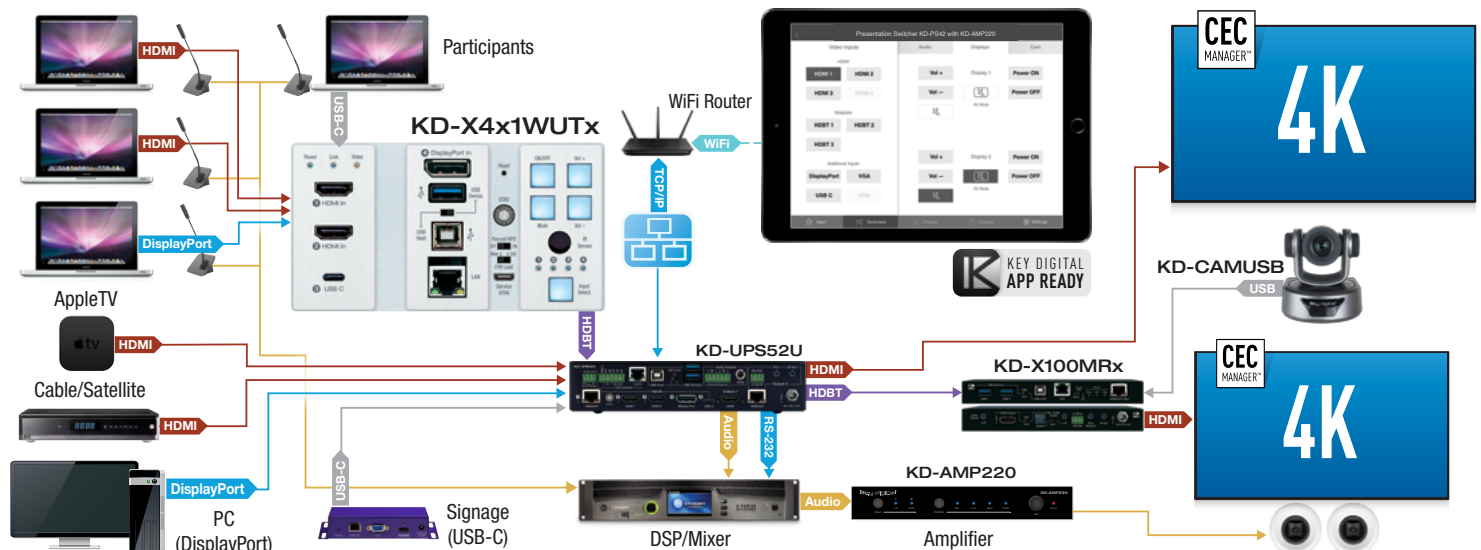
- ▶ **RS-232:** Bi-Directional control to/from Tx and Rx/Presentation Switch unit
- ▶ **Unit Control Mode:** Provides TCP/IP and RS-232 control and status of/from Tx unit
- ▶ **Lossless compressed digital audio:** Support for Dolby® TrueHD, Dolby® Digital Plus, Dolby Atmos®, and DTS-HD Master Audio™
- ▶ **Control System Support:** Fully controllable by all TCP/IP and RS-232 supported control systems via open API: Compass Control® Pro, AMX®, Crestron®, KNX®, RTI®, Savant, URC®, Leviton® etc.
- ▶ **KD-App Ready:** Network scan & detect populates pre-built GUI including connected display/projector controls via CEC Manager™

SPECIFICATIONS



- ▶ Regulation: CE, RoHS, WEEE, EAC
- ▶ Wallplate: Standard 3-gang Wallplate
- ▶ Enclosure: Faceplate - Silver Brushed Metal, Body - Texturized Silver Metal
- ▶ Product: 5.5 x 4.1 x 1.43" (141 x 105 x 36.4mm); Weight: 1.3 lbs
- ▶ Packaging: 11" x 7.9" x 2.1" (280 x 200 x 55 mm); Weight: 2.1 lbs

SYSTEM DESIGN EXAMPLE



KD-X3x1WUTx

3x1 4K 18G 428 ft (100m) HDBaseT Transmitter Wall Plate with Auto Switching, HDMI, DisplayPort and VGA Inputs, USB 2.0, LAN, CEC Control Keypad, Audio De-Embed, IR and RS-232 Pass-Thru, IP Control, Power over HDBaseT. Transmitter Only.



4K
@ 60Hz

18G

HDMI
AUDIO
DE-EMBEDDING

CEC
MANAGER™



KEY FEATURES

- **Presentation Switching:** 1 HDMI, 1 VGA+L/R, 1 Display Port, and 1 USB-C source selection by push button or IP control
- **Installation:** Fits in standard US 3-gang wall box or table and wall AV boxes
- **Rx Options:** Native integration with KD-X100MRx black box HDBaseT Rx or KD-UPS52U Presentation Switcher. Future Rx options may be available.
- **Soft-Codec & KVM Enabling System:** USB Host + Device ports create connectivity hub for professional USB cameras and microphones, audio DSP, keyboard, mouse, or touchscreen display with connected computer
- **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- **Auto-Sensing:** Automatic selection of newly detected source and switching from newly disconnected source when enabled
- **CEC Manager™:** Power, volume, and muting controls of the connected displays/projectors without any additional control wiring
- **Audio De-Embedding:** Audio of the selected source is de-embedded at the unit's analog L/R balanced/unbalanced and PCM digital audio connectors
- **ARC / eARC:** Audio may be returned from the connected Rx (KD-X100MRx) unit and output on the external analog output
- **KD-App Ready:** Network scan & detect populates pre-built GUI including connected display/projector controls via CEC Manager™
- **KDPlug & Present™ Ready:** Add KD-CX800 to build a programming-free automation system
- **Ease of Integration:** Complete configuration using Key Digital Management Software™ Pro
- **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- **HDR10:** More life-like images through a greater range of luminance levels
- **Power Over HDBaseT:** Wall-plate unit powered by Rx/Presentation Switch unit
- **Installation:** Tx unit designed for installation in standard US three-gang box
- **Signal Extension:** For resolution and cable quality
 - 4K/UHD (18G): Up to 100m / 328ft
 - 1080p: Up to 150m / 492ft

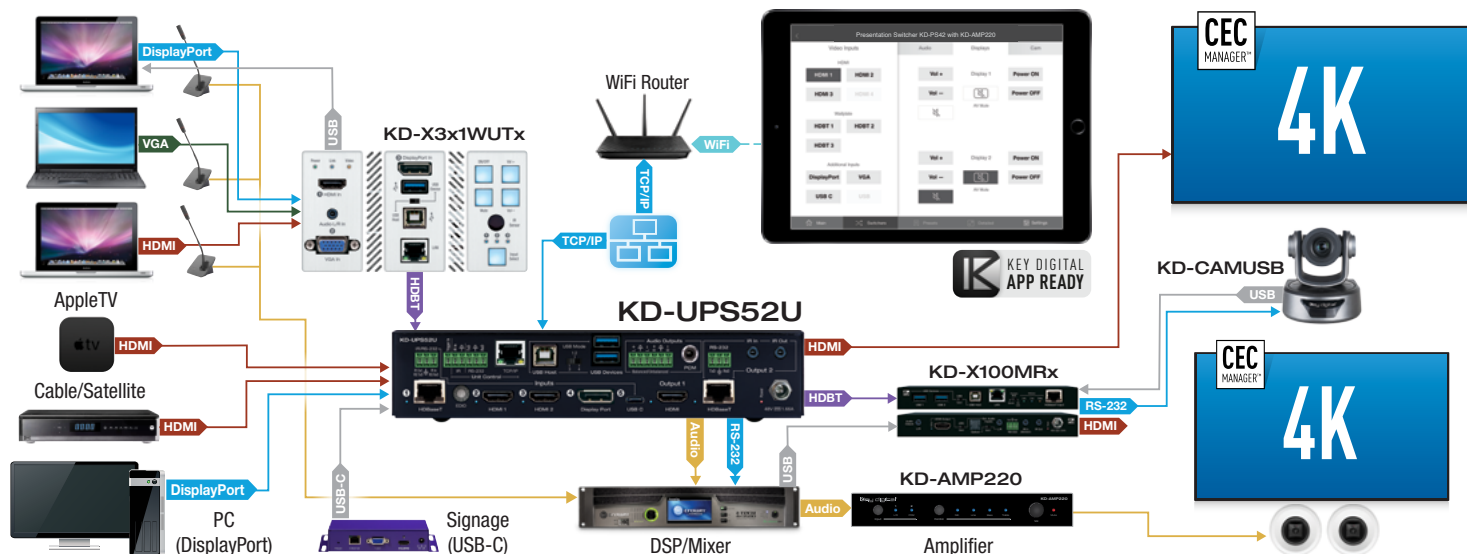
- **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, EDID Control handshake, and Hot Plug Detection Voltage
- **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the Rx display/device
- **IR Sensor:** Wall-plate collects line-of-sight IR from remote(s) without external IR wiring
- **RS-232:** Bi-Directional control to/from Tx and Rx/Presentation Switch unit
- **Lossless compressed digital audio:** Support for Dolby® TrueHD, Dolby® Digital Plus, Dolby Atmos®, and DTS-HD Master Audio™
- **Control System Support:** Fully controllable by all TCP/IP and RS-232 supported control systems via open API: Compass Control® Pro, AMX®, Crestron®, KNX®, RTI®, Savant, URC®, Leviton® etc.



SPECIFICATIONS

- Regulation: CE, RoHS, WEEE, EAC
- Wallplate: Standard 3-gang Wallplate
- Enclosure: Faceplate - Silver Brushed Metal, Body - Texturized Silver Metal
- Product: 8.27 x 7.20 x 1.75" (210 x 183 x 44.4 mm); Weight: 4 lbs
- Packaging: 15.16 x 9.10 x 3.94 (385 x 230 x 100 mm); Weight: 11 lbs

SYSTEM DESIGN EXAMPLE



KD-X2x1WDTx

2x1 4K/18G 40m HDBT PoH Wall Plate Switcher with HDMI & DisplayPort, IR, RS-232. Transmitter Only.

KEY FEATURES

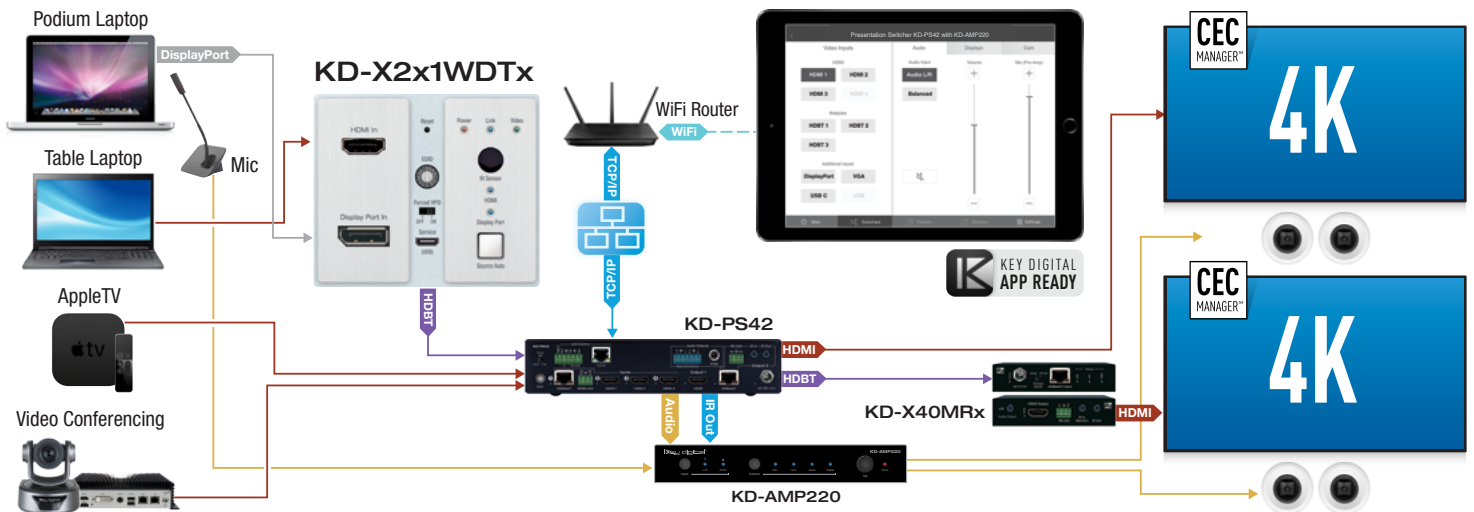
- » **Presentation Switching:** 1 HDMI and 1 Display Port source selected by push button
- » **Rx Options:** Native integration with KD-X40MRx black box HDBaseT Rx and KD-PS42 Presentation Switcher. Other Rx options available.
- » **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- » **Auto-Sensing:** Automatic selection of newly detected source and switching from newly disconnected source when enabled
- » **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- » **HDR10 & Dolby Vision:** More life-like images through a greater range of luminance levels
- » **Power Over HDBaseT:** Wall-plate unit powered by Rx/Presentation Switch unit
- » **Signal Extension:** For resolution and cable quality
 - » **4K/UHD (18G):** Up to 40m / 131ft
 - » **1080p:** Up to 70m / 230ft
- » **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- » **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, EDID Control handshake, and Hot Plug Detection Voltage
- » **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the Rx display/device
- » **IR Sensor:** Wall-plate collects line-of-sight IR from remote(s) without external IR wiring
- » **RS-232:** Bi-Directional control to/from Tx and Rx/Presentation Switch unit
- » **Unit Control:** via USB for initial installation steps
- » **Lossless Compressed Digital Audio:** Dolby® TrueHD, Dolby® Digital Plus, DTS-HD Master Audio™, and Dolby® Atmos
- » **Installation:** Tx unit designed for installation in standard US dual-gang box. Silver decora plate included.



SPECIFICATIONS

- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Tx unit: Brushed aluminum face with black metal backing
- » Dimensions: 3.21" x 2.06" x 0.787" (Wall-plate)
- » Product Weight: 0.7 lbs
- » Packaging: 10.6" x 5.9" x 2.1" (270x150x55mm)
- » Packaging Weight: 1.3 lbs

SYSTEM DESIGN EXAMPLE

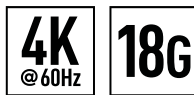


KD-X2x1WVTx

2x1 4K/18G 40m HDBT PoH Wall Plate Switcher with HDMI & VGA, IR, RS-232. Transmitter Only.

KEY FEATURES

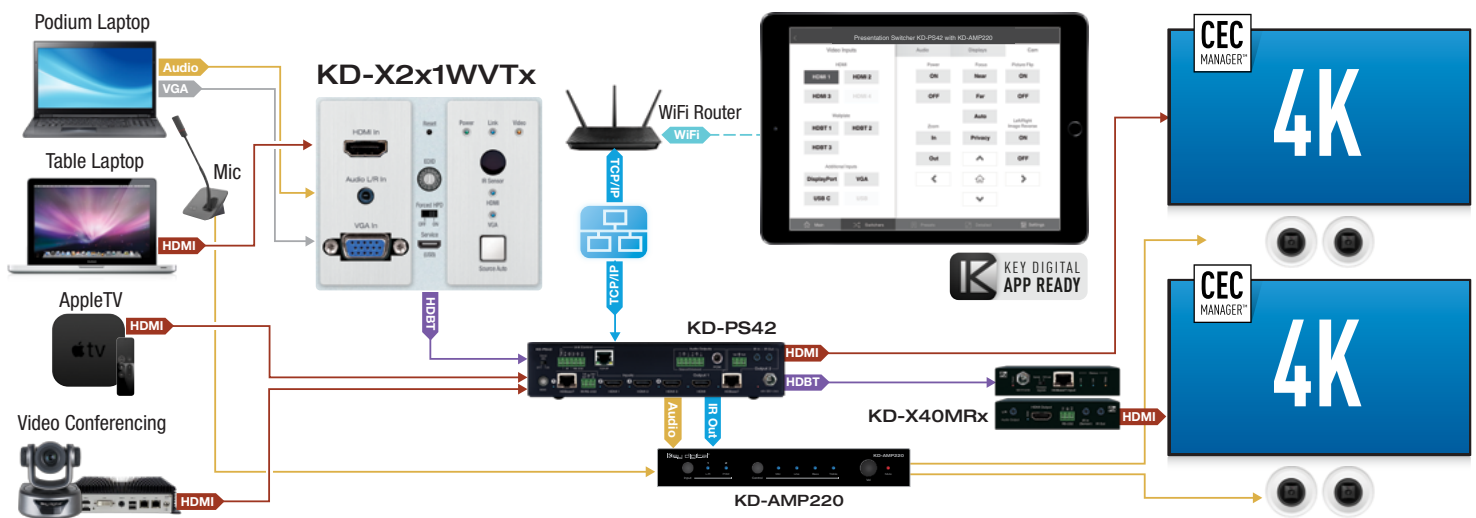
- > **Presentation Switching:** 1 HDMI and 1 VGA with Analog Audio source selected by push button
- > **Rx Options:** Native integration with KD-X40MRx black box HDBaseT Rx and KD-PS42 Presentation Switcher. Other Rx options available.
- > **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- > **Auto-Sensing:** Automatic selection of newly detected source and switching from newly disconnected source when enabled
- > **Converts:** VGA video and analog audio to HDMI
- > **Video Scaling:** Aspect ratio, resolution set, image size, image position, image phase, and color tone processing of VGA signals ensures proper display
- > **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- > **HDR10 & Dolby Vision:** More life-like images through a greater range of luminance levels
- > **Power Over HDBaseT:** Wall-plate unit powered by Rx/Presentation Switch unit
- > **Installation:** Tx unit designed for installation in standard US dual-gang box. Silver decora plate included.
- > **Signal Extension:** For resolution and cable quality
 - > **4K/UHD (18G):** Up to 40m / 131ft
 - > **1080p:** Up to 70m / 230ft
- > **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- > **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, EDID Control handshake, and Hot Plug Detection Voltage
- > **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the Rx display/device
- > **IR Sensor:** Wall-plate collects line-of-sight IR from remote(s) without external IR wiring
- > **RS-232:** Bi-Directional control to/from Tx and Rx/Presentation Switch unit
- > **Unit Control:** via USB for initial installation steps
- > **Lossless Compressed Digital Audio:** Dolby® TrueHD, Dolby® Digital Plus, DTS-HD Master Audio™, and Dolby® Atmos
- > **Installation:** Tx unit designed for installation in standard US dual-gang box. Silver decora plate included.



SPECIFICATIONS

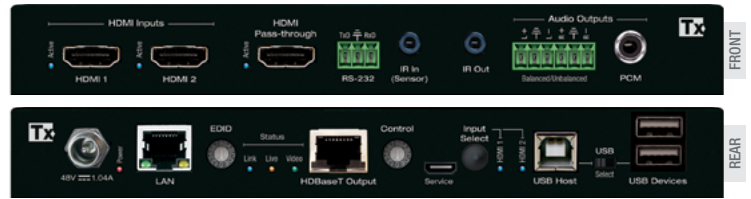
- > Regulation: CE, RoHS, WEEE, EAC
- > Enclosure: Tx unit: Brushed aluminum face with black metal backing
- > Dimensions: 3.21" x 2.06" x 0.787" (Wall-plate)
- > Product Weight: 0.7 lbs
- > Packaging: 10.6" x 5.9" x 2.1" (270x150x55mm)
- > Packaging Weight: 1.3 lbs

SYSTEM DESIGN EXAMPLE



KD-PS22UTx

4K/18G 328ft (100m) HDMI over HDBaseT Extender, 2x1 Switcher with 2 HDMI Inputs, 2 Mirrored Outputs (HDBaseT, HDMI), USB 2.0, LAN, Audio De-Embed, IR, RS-232, IP Control, PoH, CEC Manager™. Tx Only.



KEY FEATURES

- ▶ **Presentation Switching:** 2 HDMI Source selection by push button or IP control.
- ▶ **Rx Options:** Native integration with KD-X100MRx black box HDBaseT Rx or KD-UPS52U Presentation Switchers.
- ▶ **Soft-Codec & KVM Enabling System:** USB Host + Device ports create connectivity hub for professional USB cameras and microphones, audio DSP, keyboard, mouse, or touchscreen display with connected computer
- ▶ **KDPlug & Present:** Add KD-CX800 to build programming-free automation system for room display on / off, screen control, auto switching, KD-CAMUSB PTZ camera, KD-AMP220 amp with mic mix, and common video source control
- ▶ **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- ▶ **Visually Lossless Compression:** 18G enabling technology applied to all video formats exceeding 10.2Gbps to accommodate HDBaseT transmission channel
- ▶ **10G Pass-thru:** Mode enables uncompressed 10.2Gbps signal extension
- ▶ **Auto-Sensing:** Automatic selection of newly detected source and switching from newly disconnected source when enabled
- ▶ **KD-App Ready:** Network scan & detect populates pre-built GUI including connected display/projector controls via CEC Manager™
- ▶ **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- ▶ **HDR10 & Dolby Vision:** More life-like images through a greater range of luminance levels
- ▶ **Power Over HDBaseT:** Unit powered by Rx/Presentation Switch unit
- ▶ **Signal Extension:** For resolution and cable quality
 - ▶ **4K/UHD (18G):** Up to 100m / 328ft
 - ▶ **1080p:** Up to 150m / 492ft (Long Range Mode)
- ▶ **Long Range Mode:** Extends 1080p signals up to 152m (500 ft.) using CAT5e/6 (UHD/4K not supported)

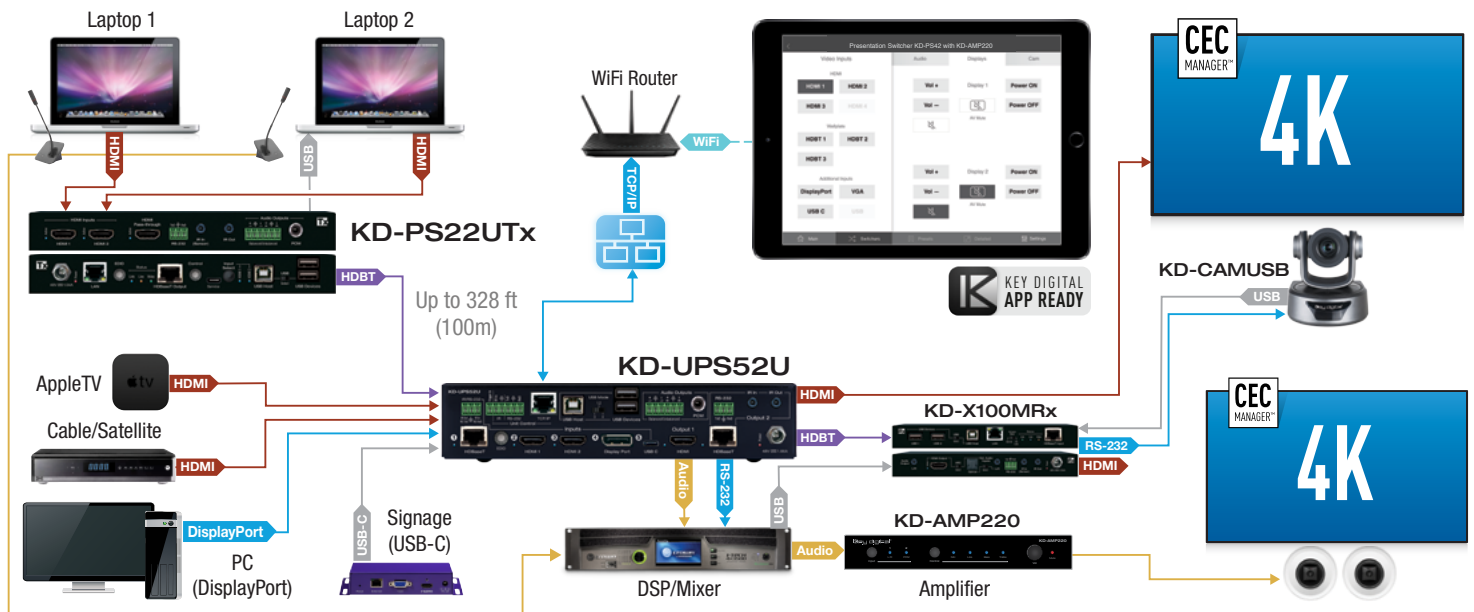
- ▶ **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- ▶ **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, EDID Control handshake, and Hot Plug Detection Voltage
- ▶ **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the Rx display/device
- ▶ **IR Bi-Directional control:** Tx supports IR input via the included IR sensor and output via the included IR emitter
- ▶ **RS-232:** Bi-Directional control to/from Tx and Rx/Presentation Switch unit
- ▶ **Unit Control Mode:** Provides TCP/IP control and status of/from Tx unit
- ▶ **Surround Sound Audio:** Supports Dolby® TrueHD, Dolby® Digital Plus, Dolby Atmos®, and DTS-HD Master Audio™ multi-channel audio formats
- ▶ **Control System Support:** Key Digital® App Ready. Key Digital Management Software™ Pro (KDMS™ Pro) ready, Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API

SPECIFICATIONS



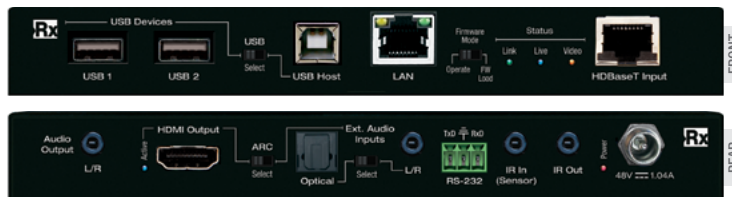
- ▶ Regulation: CE, RoHS, WEEE, EAC
- ▶ Enclosure: Black Metal
- ▶ Product: 5.5 x 4.1 x 1.43" (200.3 x 153 x 25.4mm), Weight: 1 lbs
- ▶ Packaging: 11" x 7.9" x 2.1" (250 x 195 x 90 mm), Weight: 2.1 lbs

SYSTEM DESIGN EXAMPLE



KD-X100MRx

4K/18G HDBT Rx (100m) with USB, LAN, ARC, L/R Audio In, L/R Audio Output De-Embed, IR, RS-232. Receiver Only.



KEY FEATURES

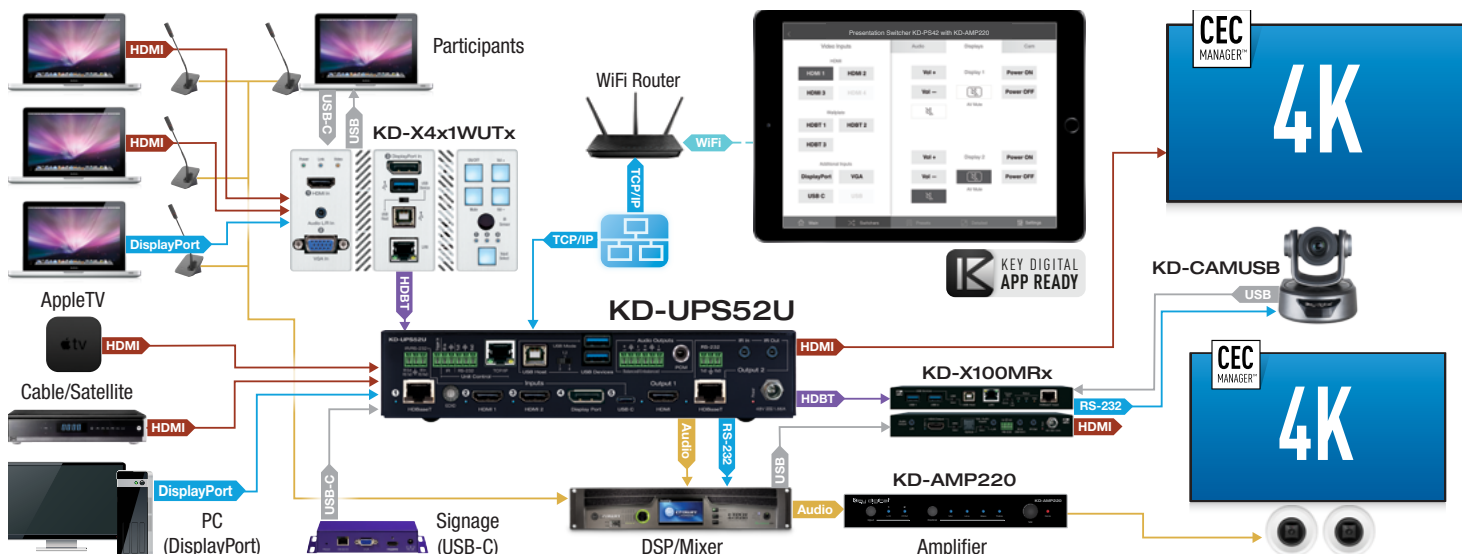
- ▶ **Tx Options:** Sold a-la-carte to integrate natively with KD-X4x1WUTx and KD-X3x1WUTx wall-plate or KD-PS22UTx black box transmitters (sold separately).
- ▶ **Soft-Codec Enabling System:** USB Host + Device ports on Rx and chosen wall-plate / Presentation Switch create connectivity hub for professional USB cameras and microphones, audio DSP, keyboard, mouse, or touchscreen display with connected computer
- ▶ **Audio De-embedding:** Audio of the selected source is de-embedded at the unit's analog L/R connector
- ▶ **Flexible Power over HDBaseT:** Rx powers Tx when integrated with KD-X4x1WUTx / KD-X3x1WUTx / KD-PS22UTx. Rx is powered by Tx when integrated with KD-UPS52U.
- ▶ **CEC Manager™:** Passes through CEC control signals for monitors & projectors generated by KD-X4x1WUTx, KD-X3x1WUTx, KD-PS22UTx, KD-UPS52U, or KD-UPS72U
- ▶ **PTZ USB Camera Integration:** Marries natively with KD-CAMUSB for full PTZ control via KD-App and more
- ▶ **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- ▶ **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- ▶ **HDR10 & Dolby Vision:** More life-like images through a greater range of luminance levels
- ▶ **Signal Extension:** For resolution and cable quality
 - » 4K/UHD (18G): Up to 100m / 328ft
 - » 1080p: Up to 150m / 492 ft.
- ▶ **10G Pass-thru:** Mode enables uncompressed 10.2Gbps signal extension
- ▶ **HDR10:** More life-like images through a greater range of luminance levels
- ▶ **HDCP 2.2:** Compliancy up to HDCP 2.2 and backward compliant
- ▶ **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit

- ▶ **IR Sensor:** Sensor powering via +5V on IR In ports collects line-of-sight IR from remote(s) without external IR connecting block
- ▶ **RS-232:** Bi-Directional control to/from Tx/Presentation Switch and Rx unit
- ▶ **Lossless Compressed Digital Audio:** Dolby® TrueHD, Dolby® Digital Plus, DTS-HD Master Audio™, and Dolby® Atmos
- ▶ **Control System Support:** Fully controllable by all TCP/IP and RS-232 supported control systems via open API
- ▶ **Low Profile:** Super slim chassis design

SPECIFICATIONS

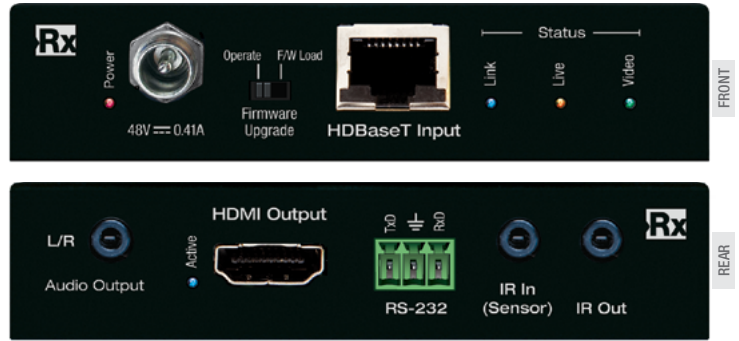
- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal
- » Product: 7.16 x 4.8 x 0.87" (182 x 122.5 x 22.2mm); Weight: 1 lbs
- » Packaging: 9.3" x 6.5" x 3.5" (235 x 165 x 90 mm); Weight: 2.0 lbs

SYSTEM DESIGN EXAMPLE



KD-X40MRx

4K/18G HDBT Rx (40m) with L/R Audio De-Embed, IR, RS-232. Receiver Only.



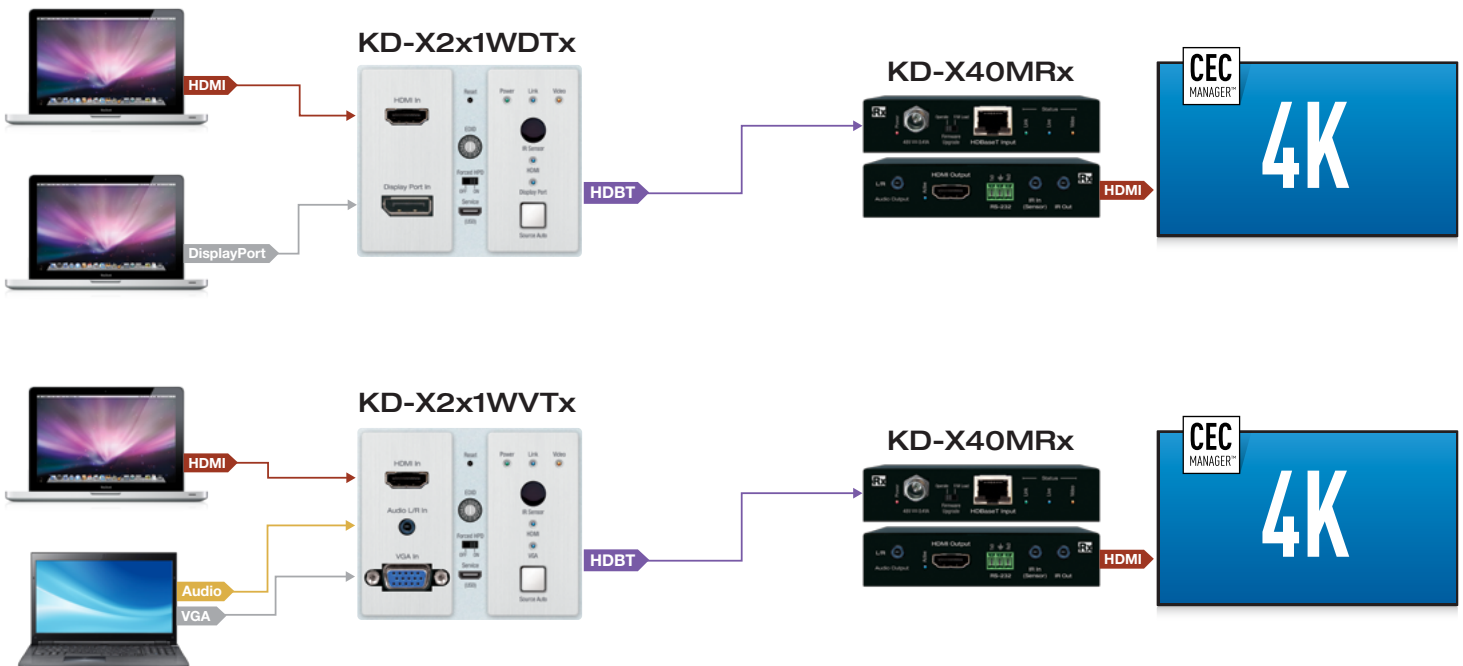
SPECIFICATIONS

- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black meta
- » Dimensions: 5.35" x 3.95" x 0.9" (136 x 100.4 x 22.95 mm)
- » Product Weight: 0.4 lbs
- » Packaging: 10" x 7.3" x 2.1" (255 x 185 x 55 mm)
- » Packaging Weight: 1.3 lbs

KEY FEATURES

- » **Tx Options:** Sold a-la-carte to integrate natively with KD-X2x1WDTx and KD-X2x1WVTx wall-plate transmitters (sold separately).
- » **Flexible Power over HDBaseT:** Rx powers Tx when integrated with KD-X2x1WDTx / KD-X2x1WVTx. Rx is powered by Tx when integrated with KD-PS42 / KD-UPS42
- » **Audio De-embedding:** Audio of the incoming source is de-embedded at the unit's analog L/R audio connection for ease of integration with audio systems
- » **CEC Manager™:** Passes through CEC control signals for monitors & projectors when integrated with KD-PS42 / KD-UPS42.
- » **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- » **4K Support:** 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- » **Low Profile:** Super slim chassis design
- » **Signal Extension:** For resolution and cable quality
 - » 4K/UHD (18G): Up to 40m / 131ft
 - » 1080p: Up to 70m / 230ft
- » **10G Pass-thru:** Mode enables uncompressed 10.2Gbps signal extension
- » **HDR10 & Dolby Vision:** More life-like images through a greater range of luminance levels
- » **HDCP 2.2:** Compliancy up to HDCP 2.2 and backward compliant
- » **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- » **IR Sensor:** Sensor powering via +5V on IR In ports collects line-of-sight IR from remote(s) without external IR connecting block
- » **Up/Down IR:** Two channels of IR enable control to/from devices or control systems connected to Tx and Rx units
- » **RS-232:** Bi-Directional control to/from Tx and Rx unit on Phoenix connector

SYSTEM DESIGN EXAMPLE



KD-CAMUSB

PTZ USB Camera IR RS-232 Visca Controllable. FREE KDCam PC Software Now Available from the Microsoft Store for Easy Control and Customization.



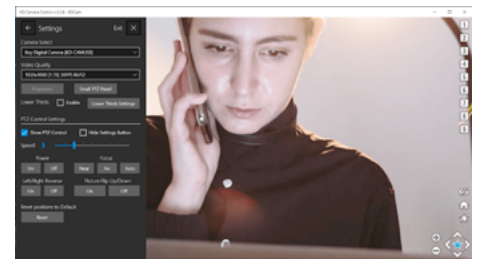
KEY FEATURES

- ▶ **USB 2.0 Pan-Tilt-Zoom Camera:** Professional USB camera ideal for Video Conferencing and Capture applications in Huddle Spaces, Conference Rooms, Board Rooms, Lecture Halls, and more.
- ▶ **Compatible Operating Systems:** Generic USB Video Class Driver for effortless use on Windows 7, Windows 10, Mac OS X, and Linux machines
- ▶ **Video Conference Software Support:** Delivers professional PTZ features for popular video conference software such as Skype®, GoToMeeting®, Microsoft Teams®, Zoom™, RingCentral®, Google® Hangouts, and more
- ▶ **Soft Conference Enabling System:** Use with Key Digital Presentation Solutions family including KD-UPS52U, KD-X100MRx, KD-PS42, and KD-X40MRx to add USB plug-in wall plates, USB/KVM routing and extension, Digital Video switching, integration with professional audio visual systems (use external microphones as KD-CAMUSB does not feature built-in mic), TCP/IP and KD-App ready control.
- ▶ **Multiple Mounting Options:** Wall, and ceiling mounting hardware included. May also be table surface mounted.
- ▶ **Recall & Store Position Presets:** Up to 255 presets may be created, with up to 12 presets accessed via IR remote control on Home, Privacy, and numeric buttons.
- ▶ **Auto Focus:** Fast and accurate auto focus via leading auto focus algorithm
- ▶ **Video Resolutions:** From 320x240p @ 30fps up to 1920x1080p @ 30fps. Adjustable via Windows camera viewer and conferencing software camera settings panels
- ▶ **Pan-Tilt-Zoom:** Pan = ±170°. Tilt = -30° to +90°. Zoom = 10x
- ▶ **User-Friendly IR Remote:** Provides intuitive and ergonomic control
- ▶ **RS-232:** Bi-Directional control to/from KD-CAMUSB or via Key Digital Presentation Solutions Extender & Switcher units
- ▶ **VISCA Controllable:** Responds to VISCA protocol for control by PTZ camera control consoles. Supports addressing for multi-camera systems.
- ▶ **Control System Support:** Compass Control® Pro ready. Fully controllable by all RS supported control systems. TCP/IP controllable when integrated with supported Key Digital Presentation Solutions Extenders and Switchers.

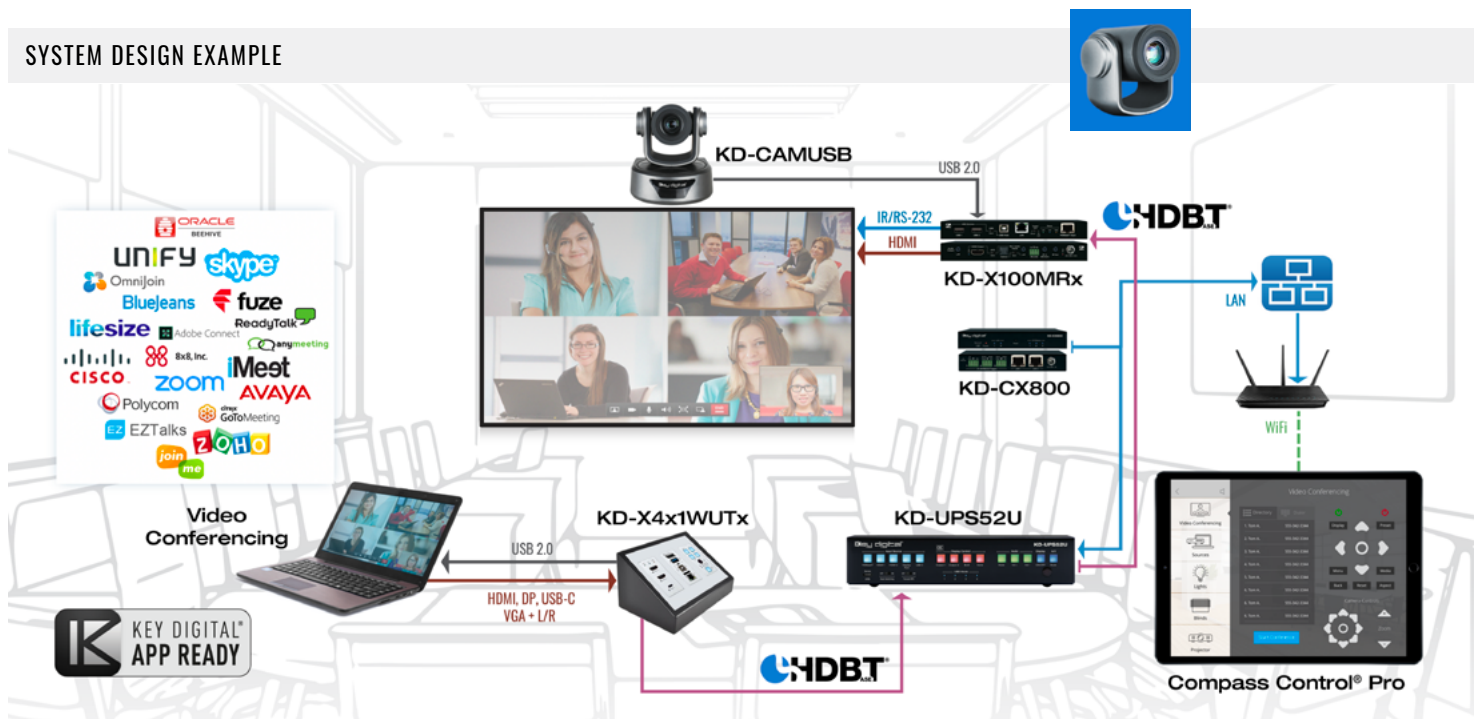
- ▶ **KD-App Ready:** When integrated with supported Key Digital Presentation Solutions Extenders and Switchers including KD-UPS52U, KD-X100MRx, KD-PS42, and KD-X40MRx. Pre-built GUI populates offering PTZ controls as source selection and display/projector controls via CEC Manager™.

KDCam PC SOFTWARE NOW AVAILABLE FROM THE MICROSOFT STORE

- ▶ Provides user-friendly camera control and preview on PCs and PC Tablets
- ▶ Controls KD-CAMUSB via the USB connection and may be used on its or while concurrently running video editing or conferencing software
- ▶ Create and call position presets, pan, tilt, and zoom to perfect your video broadcast
- ▶ Control options: up to 9 camera presets plus customizable home and privacy presets, pan, tilt, zoom, resolution adjustment, left/right reverse, picture flip, and pan speed
- ▶ Lower-thirds features include single or dual lined text with optional semi-transparent grey shape, or a png image may be imported and positioned as desired
- ▶ Access advanced features such as video resolution, camera speed adjustments, lens properties and more. Advanced properties controls: brightness, contrast, and hue.
- ▶ On-screen customization for use with multiple windows and the on-screen control. On-screen controls can be minimized or expanded as needed.



SYSTEM DESIGN EXAMPLE



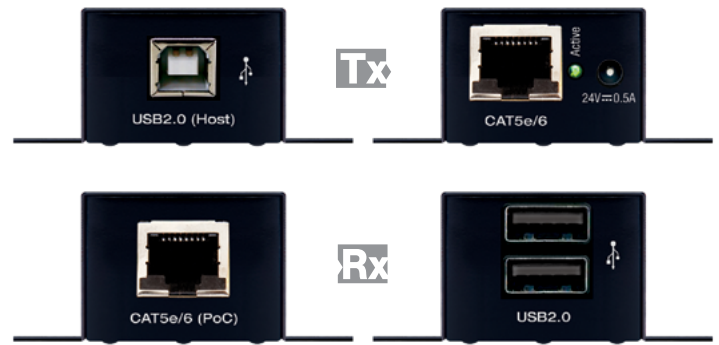
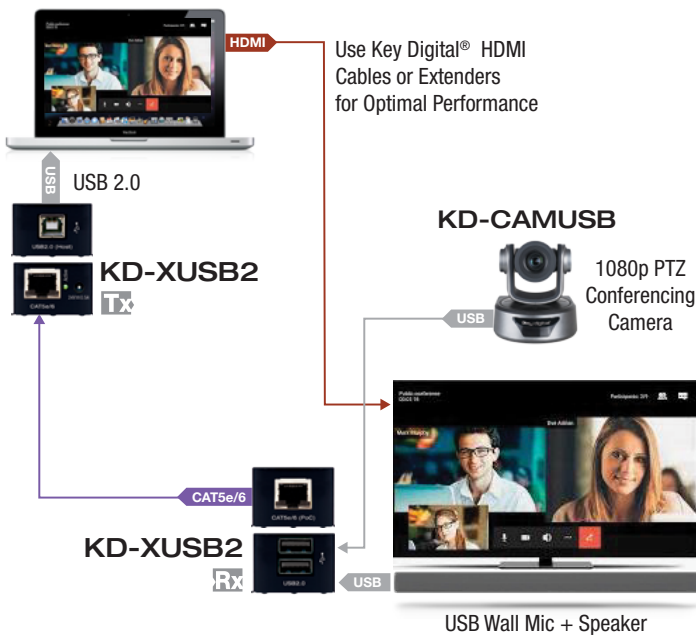
KD-XUSB2

USB2.0 over CAT5e/6 50m Extender Kit (Tx and Rx). Rx features built-in 2 Port USB Hub, Power over CAT.

KEY FEATURES

- > **Signal Extension:** Extends USB signals up to 50m / 164ft using CAT5e/6 cable
- > **Data transfer rate:** Supports Low, Full, and High data transfer speeds up to 480Mbps
- > **Power Over CAT (PoC):** Rx unit powered by Tx
- > **USB Power to device:** Rx unit may provide 5V 500mA powering to connected device
- > **Backward Compatible:** Supports USB versions 1.1 thru 2.0
- > **Installation:** Compact size with L bracket chassis, ideal for mounting at tables, desks, or walls
- > **Hub Compatible:** Supports up to 15 connect USB devices with USB hub connected to Rx unit
- > **No software required:** Effortless use on Windows, Mac, and Linux machines

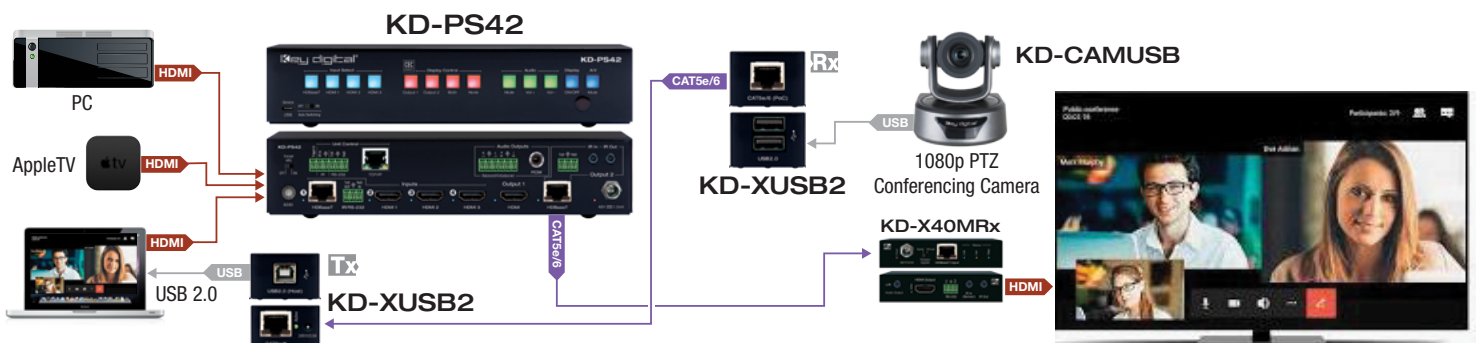
SYSTEM DESIGN EXAMPLE



SPECIFICATIONS

- > **Technical:**
 - » Inputs Tx (Each): 1 USB-B
 - » Outputs Tx (Each) 1 CAT5e/6
 - » Inputs Rx (Each) 1 CAT5e/6
 - » Outputs Rx (Each) 2 USB-A
- > **General:**
 - » Regulation: CE, RoHS, WEEE, EAC
 - » Enclosure: Black Metal
 - » Product (Tx): 2.6 x 2.37 x 0.93" (67 x 60.2 x 23.7mm), Weight: 0.3 lbs
 - » Product (Rx): 2.6 x 2.37 x 1.1" (67 x 60.2 x 26.1mm), Weight: 0.3 lbs
 - » Packaging: 9 x 7.8 x 2.5" (230 x 198 x 63mm), Weight: 1 lbs
- > **Accessories:**
 - » Power supply (24V / 0.5A) (qty 1)
 - » 2 ft USB-A – USB-B cable (qty1)

INTEGRATED PRESENTATION SYSTEM EXAMPLE



KD-VW4x4Pro

4x4 Video Wall Processor, supports Seamless Presentation Matrix Switching. Features 8 Video Wall Modes.



KEY FEATURES

- › **HDMI Matrix Switching:** 4 HDMI/Analog sources to 4 HDMI outputs, independent when in matrix mode
- › **Seamless Switching:** Un-interrupted screen transitions during source selections
- › **Video Wall Processing:** Transform consumer and professional displays into a video wall with eight **video wall modes**:
 - › Horizontal (4): 1x4 Rotated, 1x4, 1x3, and two sets of 1x2
 - › Vertical (3): 4x1, 3x1, and two sets of 2x1
 - › 2x2
- › **Bezel Control:** Create a fluid screen transition by removing pixels from top, bottom, left, and right border independently
- › **Panel Flip:** Enables use of consumer displays by mounting top row upside down
- › **Resolution Support:** Supports SD, HD, and VESA input resolutions up to 1080p / 1920x1200 on HDMI and analog video Inputs
- › **EDID:** Internal library with 5 default EDID configurations for each input, in addition to native EDID data for any Output/Display
- › **Full Buffer™ Technology:** Full buffering of HDCP and EDID, for the fastest possible switching and viewing of any source/input to any display/output, regardless of multiple output viewing relation
- › **TMDS re-clocking:** Support for long HDBaseT/CAT5e/6 or HDMI connections and many layers of connectivity.
- › **Deep Color Support:** Up to 12 bits/color

- › **Control:** Front panel buttons, Serial IR, Optical IR, RS-232, and TCP-IP, including video wall mode select, matrix switching, EDID Control and discrete on and off via IR
- › **Control System Support:** Key Digital Management Software™ Pro (KDMS™ Pro) ready, Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- › **Key Digital App Ready:** Can be controlled over TCP/IP via Key Digital® App

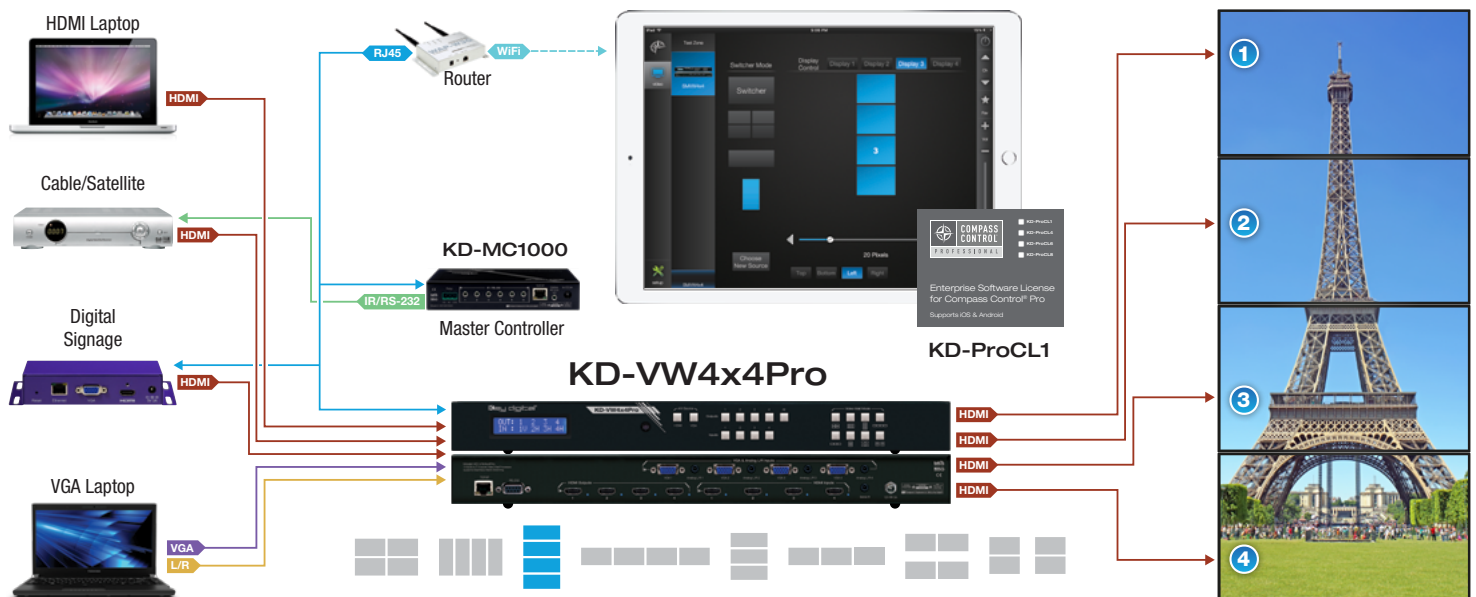
SPECIFICATIONS

- › Power Supply: KD-PS12V3A, 12V/3A, 100-240VAC, 50-60Hz, NEMA 1-15P Cord
- › Rack Mount: 1U, full rack-width (rack ears included)
- › Product: 17.25" x 7.1" x 1.75"; Weight: 6.5 lbs
- › Packaging: 22.8" x 8.5" x 3.2"; Weight 8 lbs
- › Regulation: CE, RoHS, WEEE, EAC
- › Enclosure: Black Metal

VIDEO WALL MODES



SYSTEM DESIGN EXAMPLE



KD-MLV4x4Pro

4x4 4K UHD HDMI seamless matrix with multi-view tiling, includes 4 Rx units. Features independent AV routing, mirrored HDMI and UHDoTP outputs.



4K MULTI-VIEW MODES



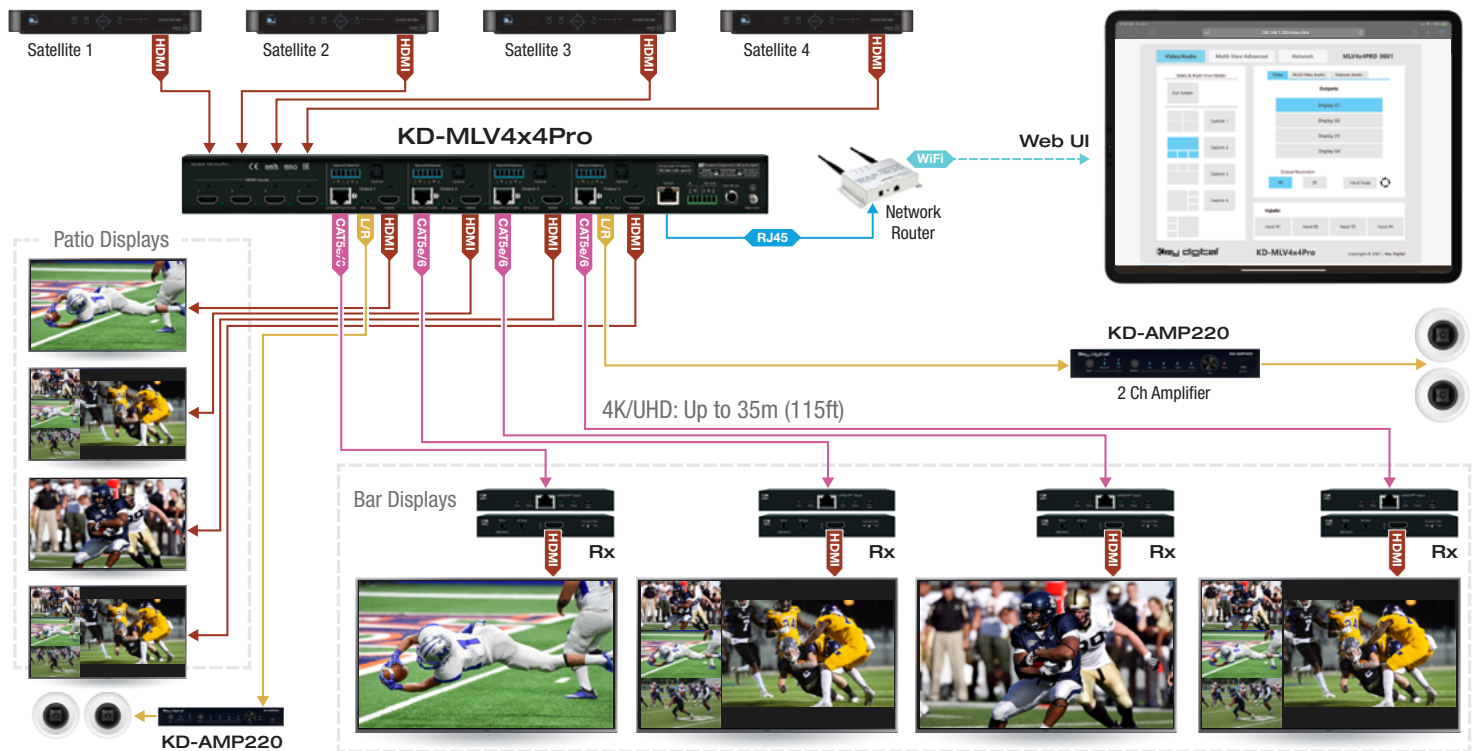
KEY FEATURES

- **Multi-view Tiling Processor:** Simultaneously watch multiple sources on a single screen
 - **Full-Screen Mode:** View full-screen content on any display
 - **Multi-View Mode:** Choose from 5 default layouts or create custom presets. The active multi-view layout is distributed to any display currently in multi-view mode
- **Seamless Switching:** Un-interrupted screen transitions during source selection while in full-screen mode
- **Built-In UHDoTP Tx with PoC:** 4 included KD-EXMLVRx units are powered by KD-MLV4x4Pro
- **Mirrored Outputs:** Simultaneously active HDMI + UHDoTP connections per output show same AV signal at same time for a total of 8 possible displays connected
- **Independent Audio Matrix:** Audio output ports may be routed separately from HDMI & UHDoTP ports. Audio from any source may be selected while in multi-view mode.
- **Video Resolution:** Up to 3840 x 2160p 4:2:0 at 60fps supported on inputs & 3840 x 2160p 4:4:4 at 30fps on outputs
- **Signal Extension:** For resolution and cable quality
 - **4K/UHD:** Up to 35m (115ft) using CAT5e/6, up to 40m (131ft) using CAT6A STP
 - **1080p:** Up to 50m (164ft) maximum, up to 60m (197ft) using CAT6A STP
 - **Minimum:** 5m (17ft) CAT5e/6 cable length required for all resolutions
- **Text Overlay:** Assigned name of each source may be displayed in each window. 16 Characters maximum with variable sizing and location settings.
- **4K Down-Convert:** Integrate 4K sources with legacy 1080p & 720p displays
- **Image Layering:** Stack images with customizable priority settings per output
- **Custom Layouts and Borders:** Create custom window layouts and choose window bezel width and coloring
- **HDCP 2.2 Licensing:** Fully licensed and compatible with HDCP 2.2

- **Built-In Test Patterns:** 9 selectable test screens help expedite installation
- **IR Two-Way:** Extend IR via Rx units to control displays or collect IR from remote to control a source at matrix
- **Web UI:** Control AV routing and other basic functions from any web browser
- **Audio De-Embed:** 6 pin balanced / un-balanced and digital optical outputs
- **Dolby Digital® & DTS™ Audio:** Supports 2-channel and multi-channel surround formats up to 5.1 Dolby® / DTS™
- **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, and EDID handshake to source
- **EDID Management:** Internal library with 8 EDID AV handshakes per input, in addition to ability to copy from any connected display / output
- **TMDS Re-clocking:** Supports long HDMI connectivity using Key Digital® HDMI cables
- **Deep Color Support:** Up to 8 bits/color
- **Control:** Front panel buttons, IR, RS-232, TCP-IP and Web Control
- **Key Digital® App Ready:** Can be controlled over TCP/IP via Key Digital® App
- **Control System Support:** Key Digital Management Software™ Pro (KDMS™ Pro) ready, Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- **Regulation:** CE, RoHS, WEEE, EAC



SYSTEM EXAMPLE



KD-MS4x4G

4x4 4K/18G HDMI Matrix Switchers, with Independent Audio Switching, Balanced/Unbalanced Audio, Audio De-embedding of Analog L/R/PCM



4K
@ 60Hz

18G

444

HDMI
AUDIO
DE-EMBEDDING



SPECIFICATIONS

- » Input (Each): 1 HDMI Connector, Type A, 19 Pin Female
- » Output (Each): 1 HDMI Connector, Type A, 19 Pin Female
- » Output (Each): Balanced/unbalanced line level audio on 6-pin terminal block. Drives 2VRMS line audio input with a sampling rate of 192KHz
- » Output (each): RCA female for digital audio following SPDIF format (IEC 60958). Supports sampling rate up to 192KHz
- » Power: 12V/3.3A (40W) AC Power Supply with Grounded, 2.1mm ID DC Power Jack with Screw In Type.
- » Regulation: CE, RoHS, WEEE, EAC
- » Rack Mount: 1U, 1 Rack Width (rack ears included)
- » Enclosure: Black Metal
- » Dimensions: L = 17.32" W = 5.78" H = 1.72"
- » Shipping Carton Dimensions: L = 23.4" W = 8.54" H = 2.36"
- » Product Weight: 6 lb
- » Shipping Weight: 9 lb
- » Accessories: IR Remote, UL Certified Power Supply

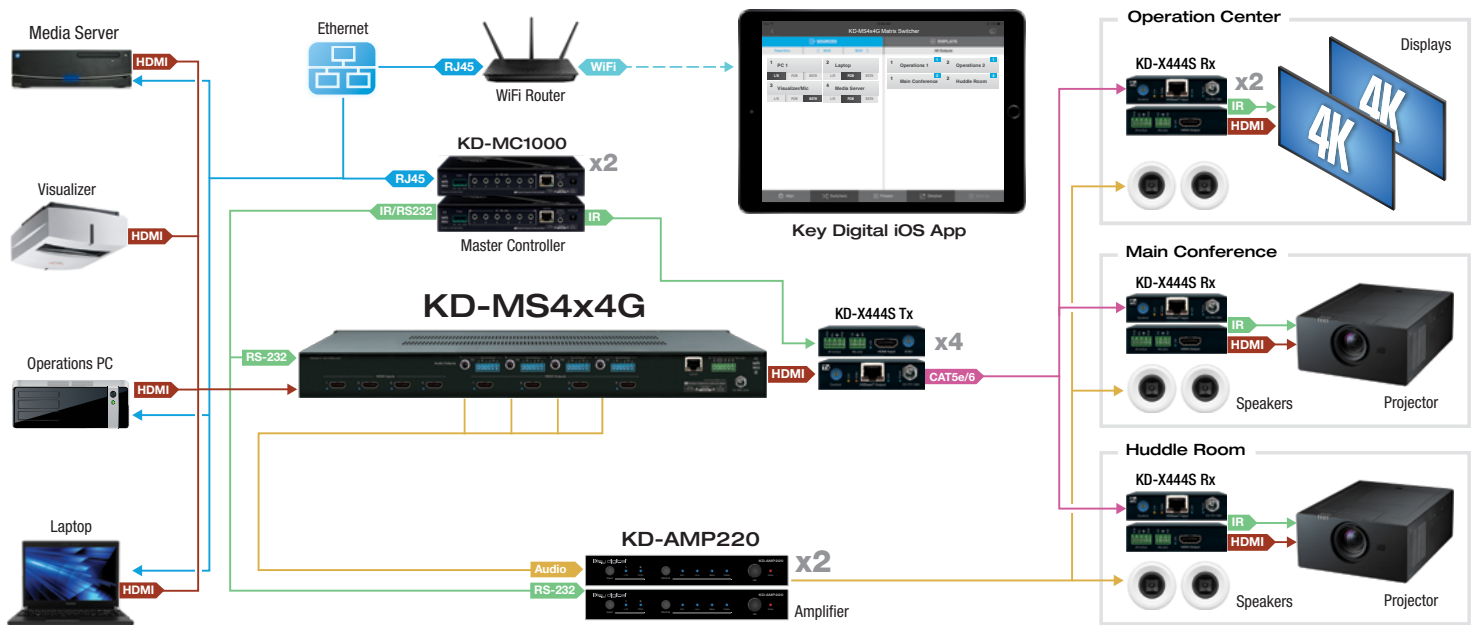
Key digital PRO
MANAGEMENT SOFTWARE

KEY DIGITAL
APP READY

KEY FEATURES

- » **HDMI Matrix Switching:** 4 HDMI sources to 4 HDMI outputs
- » **Ultra HD/4K Support:** 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- » **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- » **HDR10 (High Dynamic Range):** More life-like images through a greater range of luminance levels
- » **Resolution Support:** Supports all SD, HD, and VESA (VGA, SVGA, XGA, WXGA, SXGA, UXGA) up to 4096x2160p
- » **Deep Color Support:** Up to UHD/4K 60Hz 4:2:0/12 bits, 60Hz 4:2:2/12 bits
- » **Independent Audio and Video Matrix:** Output HDMI and Audio ports may switch together or independently
- » **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, and EDID Control handshake
- » **EDID:** Internal library with 15 internal EDID configurations per input, in addition to native EDID data for any Output/Display
- » **TMDS re-clocking:** Long HDMI connectivity support with Key Digital® HDMI cables
- » **Lossless Compressed Digital Audio:** Dolby® TrueHD, Dolby® Digital Plus, DTS-HD Master Audio™, and Dolby® Atmos
- » **Control:** Front panel buttons/LEDs, Serial IR, Optical IR, RS-232 Control, and TCP/IP Control
- » **Control System Support:** Key Digital® app ready. Key Digital Management Software™ Pro (KDMS™ Pro) ready, Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- » **Key Digital® App & KDMS® Pro Ready:** Scan & detect population for pre-built GUI and TCP/IP control via Key Digital® iOS App and Key Digital Management Software™ Pro (KDMS™ Pro) PC Software

SYSTEM EXAMPLE



KD-MS8x8G

8x8 4K/18G HDMI Matrix Switchers, with Independent Audio Switching, Balanced/Unbalanced Audio, Audio De-embedding of Analog L/R/PCM



SPECIFICATIONS

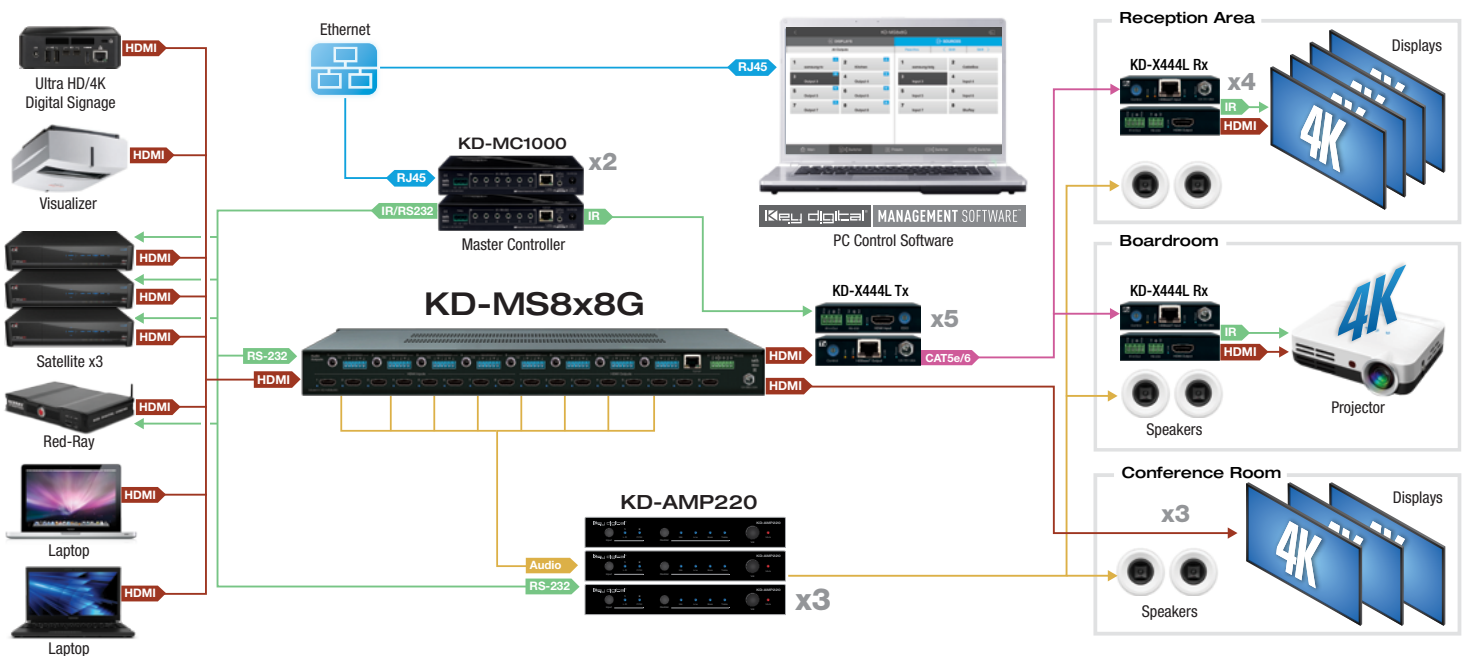
- » Input (Each): 1 HDMI Connector, Type A, 19 Pin Female
- » Output (Each): 1 HDMI Connector, Type A, 19 Pin Female
- » Output (Each): Balanced/unbalanced line level audio on 6-pin terminal block. Drives 2VRMS line audio input with a sampling rate of 192KHz
- » Output (each): RCA female for digital audio following SPDIF format (IEC 60958). Supports sampling rate up to 192KHz
- » Power: 12V/3.3A (40W) AC Power Supply with Grounded, 2.1mm ID DC Power Jack with Screw In Type.
- » Regulation: CE, RoHS, WEEE, EAC
- » Rack Mount: 1U, 1 Rack Width (rack ears included)
- » Enclosure: Black Metal
- » Dimensions: L = 17.32" W = 5.78" H = 1.72"
- » Shipping Carton Dimensions: L = 23.4" W = 8.54" H = 2.36"
- » Product Weight: 6 lb
- » Shipping Weight: 9 lb
- » Accessories: IR Remote, UL Certified Power Supply



KEY FEATURES

- » **HDMI Matrix Switching:** 8 HDMI sources to 8 HDMI outputs
- » **Ultra HD/4K Support:** 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- » **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- » **HDR10 (High Dynamic Range):** More life-like images through a greater range of luminance levels
- » **Resolution Support:** Supports all SD, HD, and VESA (VGA, SVGA, XGA, WXGA, SXGA, UXGA) up to 4096x2160p
- » **Deep Color Support:** Up to UHD/4K 60Hz 4:2:0/12 bits, 60Hz 4:2:2/12 bits
- » **Independent Audio and Video Matrix:** Output HDMI and Audio ports may switch together or independently
- » **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, and EDID Control handshake
- » **EDID:** Internal library with 15 internal EDID configurations per input, in addition to native EDID data for any Output/Display
- » **TMDS re-clocking:** Long HDMI connectivity support with Key Digital® HDMI cables
- » **Lossless Compressed Digital Audio:** Dolby® TrueHD, Dolby® Digital Plus, DTS-HD Master Audio™, and Dolby® Atmos
- » **Control:** Front panel buttons/LEDs, Serial IR, Optical IR, RS-232 Control, and TCP/IP Control
- » **Control System Support:** Key Digital® app ready. Key Digital Management Software™ Pro (KDMS™ Pro) ready, Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- » **Key Digital® App & KDMS® Pro Ready:** Scan & detect population for pre-built GUI and TCP/IP control via Key Digital® iOS App and Key Digital Management Software™ Pro (KDMS™ Pro) PC Software

SYSTEM EXAMPLE



HDMI SWITCHERS

KD-Pro2x1X

2x1 4K/18G HDMI Switcher with De-Embedded Audio Output (Optical/Balanced Audio) and IP Control



SPECIFICATIONS

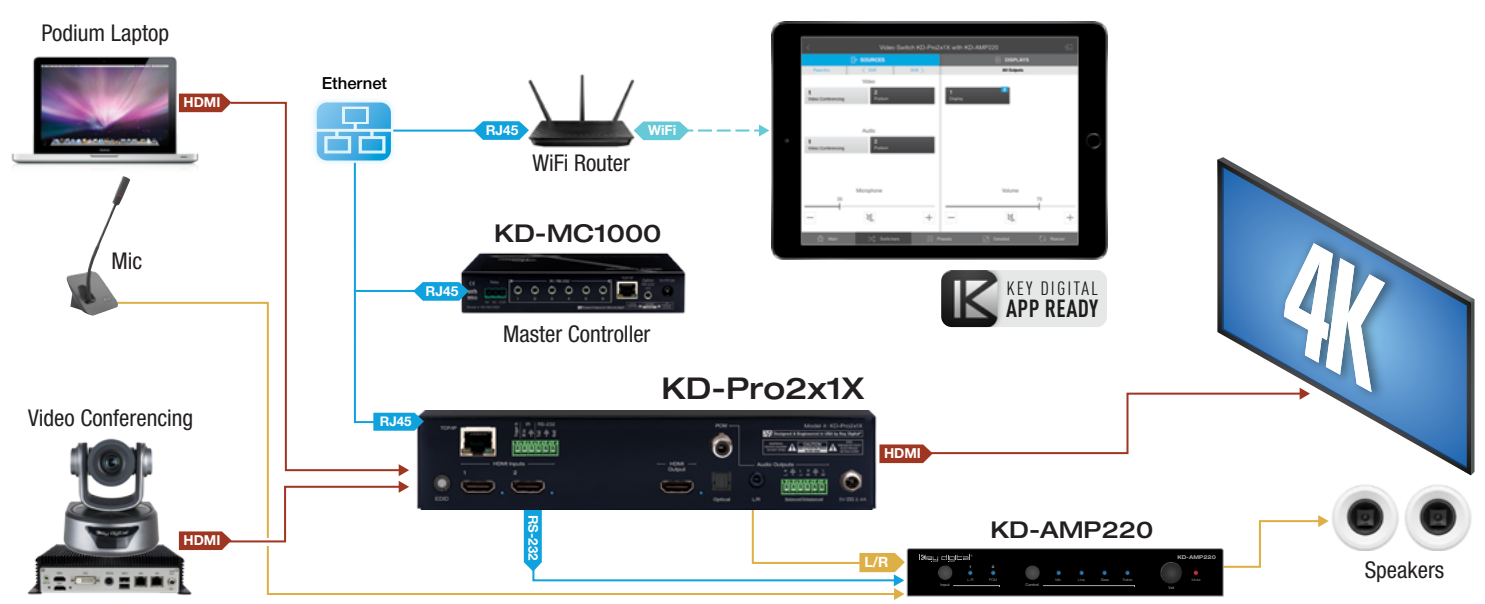
- » Input (Each): HDMI Connector, Type A, 19 Pin Female
- » Output: HDMI Connector, Type A, 19 Pin Female
- » Power Supply: KD-PS5V2ASC, 5V/2.4A, 100-240VAC, 50-60Hz, Interchangeable head, screw-in connector
- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal
- » Product Dimensions: 8.25" x 4.0" x 1.7"
- » Packaging Dimensions: 10.75" x 8.9" x 2.2"
- » Product Weight: 0.9 lb
- » Shipping Weight: 2 lb



KEY FEATURES

- » **HDMI Switching:** 2 HDMI sources to 1 HDMI output/display
- » **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60Hz at 4:4:4 (signals up to 18Gbps bandwidth)
- » **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- » **HDR10 & Dolby Vision:** More life-like images through a greater range of luminance levels
- » **Audio De-embedding:** Audio of the selected HDMI input is de-embedded at the analog (3.5mm stereo & L/R balanced/unbalanced) and digital (optical & PCM) connectors
- » **KD-AMP220 Control Mode:** Command forward to KD-Amp220 for an all-in-one user-friendly control UI of video switching, audio and speech enforcement
- » **Auto-Sensing:** Automatic selection of newly detected source and switching from newly disconnected source via hot plug detection voltage when enabled
- » **Resolution Support:** Supports all SD, HD, and VESA (VGA, SVGA, XGA, WXGA, SXGA, UXGA) up to 4096x2160p.
- » **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- » **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, and EDID Control handshake
- » **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the output/display
- » **Lossless Compressed Digital Audio:** Dolby® TrueHD, Dolby® Digital Plus, Dolby® Atmos and DTS-HD Master Audio™
- » **Control System Support:** Key Digital® App ready. Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- » **Key Digital® App Ready:** Scan & detect population for pre-built GUI and TCP/IP control via Key Digital® App

SYSTEM EXAMPLE



HDMI SWITCHERS

KD-Pro4x1X

4x1 4K/18G HDMI Switcher with De-Embedded Audio Output (Optical/Balanced Audio) and IP Control



SPECIFICATIONS

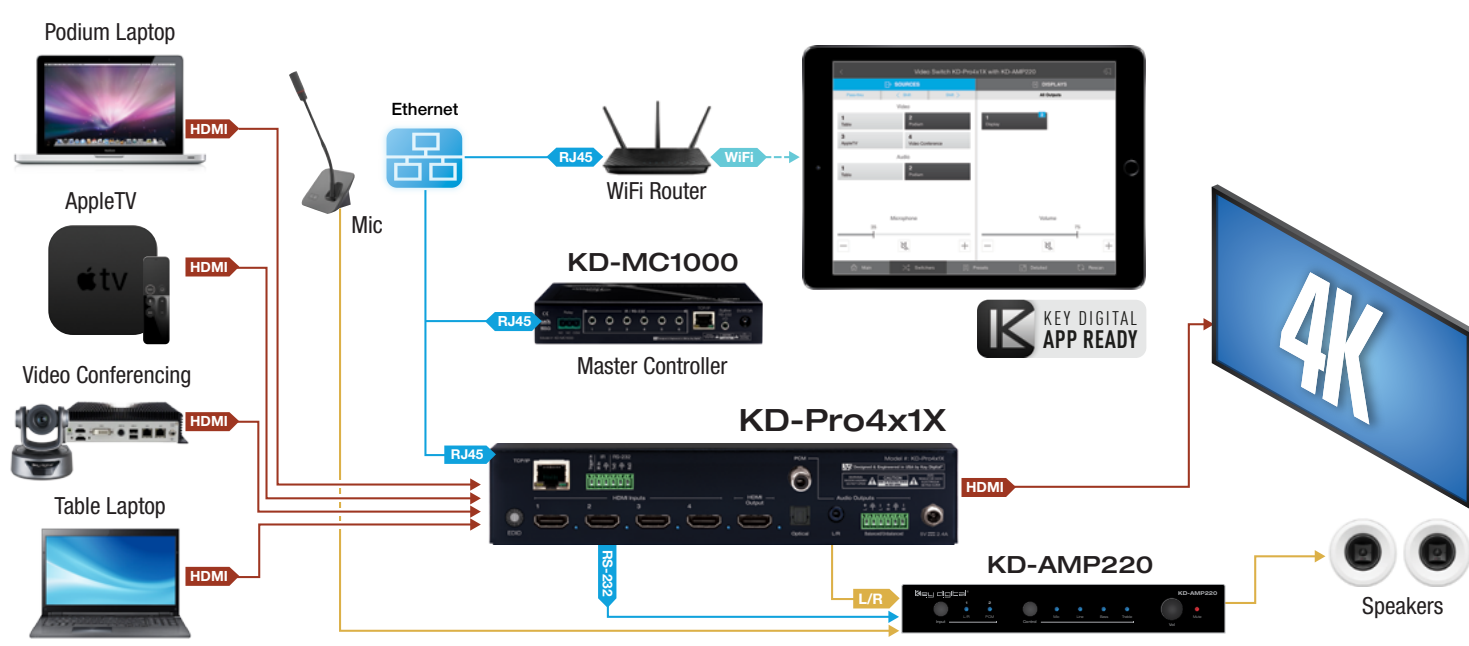
- » Input (Each): HDMI Connector, Type A, 19 Pin Female
- » Output: HDMI Connector, Type A, 19 Pin Female
- » Power Supply: KD-PS5V2ASC, 5V/2.4A, 100-240VAC, 50-60Hz, Interchangeable head, screw-in connector
- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal
- » Product Dimensions: 8.25" x 4.0" x 1.7"
- » Packaging Dimensions: 10.75" x 8.9" x 2.2"
- » Product Weight: 0.9 lb
- » Shipping Weight: 2 lb



KEY FEATURES

- » **HDMI Switching:** 4 HDMI sources to 1 HDMI output/display
- » **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- » **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- » **HDR10 & Dolby Vision:** More life-like images through a greater range of luminance levels
- » **Audio De-embedding:** Audio of the selected HDMI input is de-embedded at the analog (3.5mm stereo & L/R balanced/unbalanced) and digital (optical & PCM) connectors
- » **KD-AMP220 Control Mode:** Command forward to KD-Amp220 for an all-in-one user-friendly control UI of video switching, audio and speech enforcement
- » **Auto-Sensing:** Automatic selection of newly detected source and switching from newly disconnected source via hot plug detection voltage when enabled
- » **Resolution Support:** Supports all SD, HD, and VESA (VGA, SVGA, XGA, WXGA, SXGA, UXGA) up to 4096x2160p.
- » **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- » **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, and EDID Control handshake
- » **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the output/display
- » **Lossless Compressed Digital Audio:** Dolby® TrueHD, Dolby® Digital Plus, Dolby® Atmos and DTS-HD Master Audio™
- » **Control System Support:** Key Digital® App ready. Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- » **Key Digital® App Ready:** Scan & detect population for pre-built GUI and TCP/IP control via Key Digital® App

SYSTEM EXAMPLE

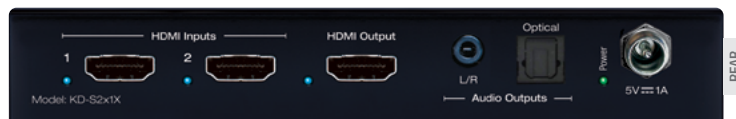
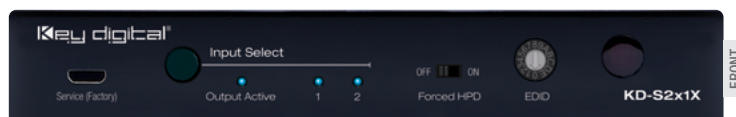


KD-S2x1X

2x1 (4K@60Hz/18G/444) HDMI Switcher with L/R / Optical Audio & De-Embedded Audio Output

KEY FEATURES

- » **HDMI Switching:** 2 HDMI sources to 1 HDMI output/display
- » **Ultra HD/4K Support:** 4096x2160 or 3840x2160 24/25/30/60Hz at 4:4:4 (signals up to 18Gbps bandwidth)
- » **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- » **HDR10 (High Dynamic Range):** More life-like images through a greater range of luminance levels
- » **Resolution Support:** Supports all SD, HD, and VESA (VGA, SVGA, XGA, WXGA, SXGA, UXGA) up to 4096x2160p.
- » **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- » **Audio De-embedding:** Audio of the selected HDMI input is output at the digital optical and analog 3.5mm stereo connectors
- » **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, and EDID Control handshake
- » **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the output/display
- » **Lossless Compressed Digital Audio:** Dolby® TrueHD, Dolby® Digital Plus, DTS-HD Master Audio™, and Dolby® Atmos
- » **CEC Pass-thru:** From connected display to selected HDMI source
- » **Control:** Front panel buttons/LEDs, Optical IR
- » **Control System Support:** Compass Control® Pro ready. Fully controllable by all IR supported control systems.



HDMI
High Definition Multimedia Interface

SPECIFICATIONS

- » Input (Each): HDMI Connector, Type A, 19 Pin Female
- » Output: HDMI Connector, Type A, 19 Pin Female
- » Bandwidth: TMDS bandwidth 18 Gbps
- » DDC Signal (Data): Input DDC Signal - 5 Volts p-p (TTL)
- » HDMI Video/Audio Signal: Input Video Signal - 1.2 Volts p-p
- » Power Supply: KD-PS5V1ASC, 5V/1A, 100-240VAC, 50-60Hz, Interchangeable head, screw-in connector
- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal
- » Product Dimensions: 4.3" x 1.1" x 2.8"
- » Packaging Dimensions: 6.3" x 4.2" x 3.7"
- » Product Weight: 0.5 lb; 0.9 lb
- » Shipping Weight: 0.7 lb; 1.5 lb

SYSTEM DESIGN EXAMPLE



KD-S4x1X

4x1 (4K@60Hz/18G/444) HDMI Switcher with L/R / Optical Audio & De-Embedded Audio Output



HDMI
High-Definition Multimedia Interface

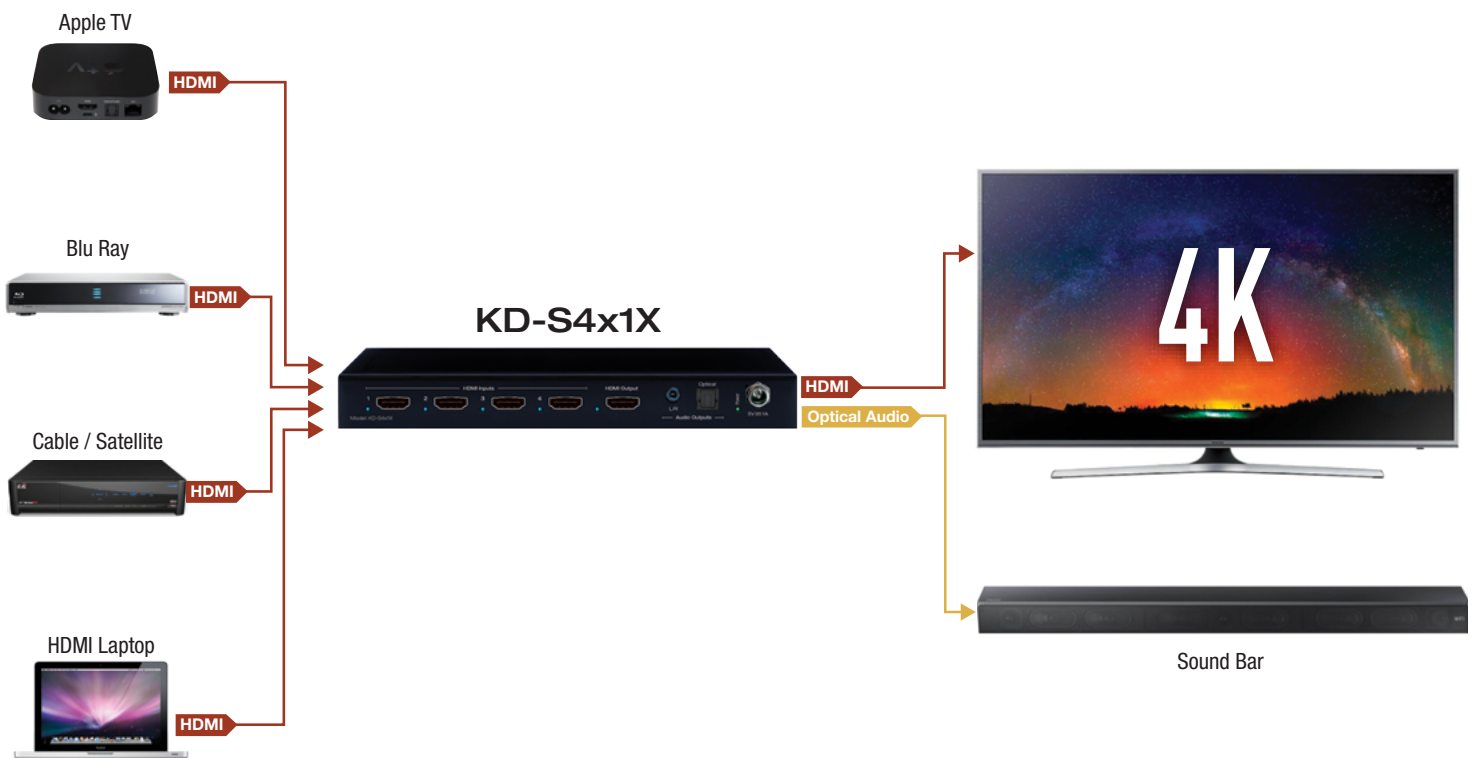
KEY FEATURES

- › **HDMI Switching:** 4 HDMI sources to 1 HDMI output/display
- › **Ultra HD/4K Support:** 4096x2160 or 3840x2160 24/25/30/60Hz at 4:4:4 (signals up to 18Gbps bandwidth)
- › **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- › **HDR10 (High Dynamic Range):** More life-like images through a greater range of luminance levels
- › **Resolution Support:** Supports all SD, HD, and VESA (VGA, SVGA, XGA, WXGA, SXGA, UXGA) up to 4096x2160p.
- › **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- › **Audio De-embedding:** Audio of the selected HDMI input is output at the digital optical and analog 3.5mm stereo connectors
- › **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, and EDID Control handshake
- › **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the output/display
- › **Lossless Compressed Digital Audio:** Dolby® TrueHD, Dolby® Digital Plus, DTS-HD Master Audio™, and Dolby® Atmos
- › **CEC Pass-thru:** From connected display to selected HDMI source
- › **Control:** Front panel buttons/LEDs, Optical IR
- › **Control System Support:** Compass Control® Pro ready. Fully controllable by all IR supported control systems.

SPECIFICATIONS

- › Input (Each): HDMI Connector, Type A, 19 Pin Female
- › Output: HDMI Connector, Type A, 19 Pin Female
- › Bandwidth: TMDS bandwidth 18 Gbps
- › DDC Signal (Data): Input DDC Signal - 5 Volts p-p (TTL)
- › HDMI Video/Audio Signal: Input Video Signal - 1.2 Volts p-p
- › Power Supply: KD-PS5V1ASC, 5V/1A, 100-240VAC, 50-60Hz, Interchangeable head, screw-in connector
- › Regulation: CE, RoHS, WEEE, EAC
- › Enclosure: Black Metal
- › Product Dimensions: 6.25" x 1.1" x 3.1"
- › Packaging Dimensions: 9.8" x 4.5" x 3.35"
- › Product Weight: 0.9 lb
- › Shipping Weight: 1.5 lb

SYSTEM DESIGN EXAMPLE



KD-DA2x8G

2x8 4K/18G POH/HDBT/HDMI Distribution Amplifier/Switcher with Audio De-Embedding (Includes KIT 8 Rx 100 Meters Extenders)

KEY FEATURES

- ▶ **HDMI Switching & Distribution:** 2 HDMI sources to 8 HDBaseT outputs
- ▶ **Power over HDBaseT:** All included Rx units powered by the main unit
- ▶ **Ultra HD/4K Support:** 4096x2160 or 3840x2160 24/25/30/60Hz at 4:4:4 (signals up to 18Gbps bandwidth)
- ▶ **Signal Extension:** For resolution and cable quality
 - » **4K/UHD:** Up to 250 ft. (76m) using CAT5e/CAT6/CAT6A/CAT7
 - » **1080p:** Up to 328 ft. (100m) maximum
- ▶ **18 Gbps Bandwidth:** High Speed / Performance for latest HDMI standards
- ▶ **High Dynamic Range (HDR) Format Support:** HDR10 and Dolby® Vision
- ▶ **HDCP 2.2:** Compliancy up to HDCP 2.2 and backward compliant
- ▶ **Resolution Support:** Supports all SD, HD, and VESA (VGA, SVGA, XGA, WXGA, SXGA, UXGA) up to 4096x2160p
- ▶ **Deep Color Support:** Up to UHD/4K 60Hz 4:2:0/12 bits, 60Hz 4:2:2/12 bits
- ▶ **Auto-Sensing:** Automatic selection of newly detected source and switching from newly disconnected source via hot plug detection voltage when enabled
- ▶ **Audio De-embedder:** Audio of the selected HDMI input is de-embedded at the Coax digital (PCM) and Analog L/R balanced/unbalanced connectors
- ▶ **Control Pass-Thru:** 8 three pin phoenix connectors for bi-directional IR or RS-232 for each HDBaseT output. 8 IR sensors and IR emitters included.
- ▶ **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, and EDID Control handshake
- ▶ **EDID:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from an Output/Display 1
- ▶ **Lossless Compressed Digital Audio:** Dolby® TrueHD, Dolby® Digital Plus, DTS-HD Master Audio™, and Dolby® Atmos



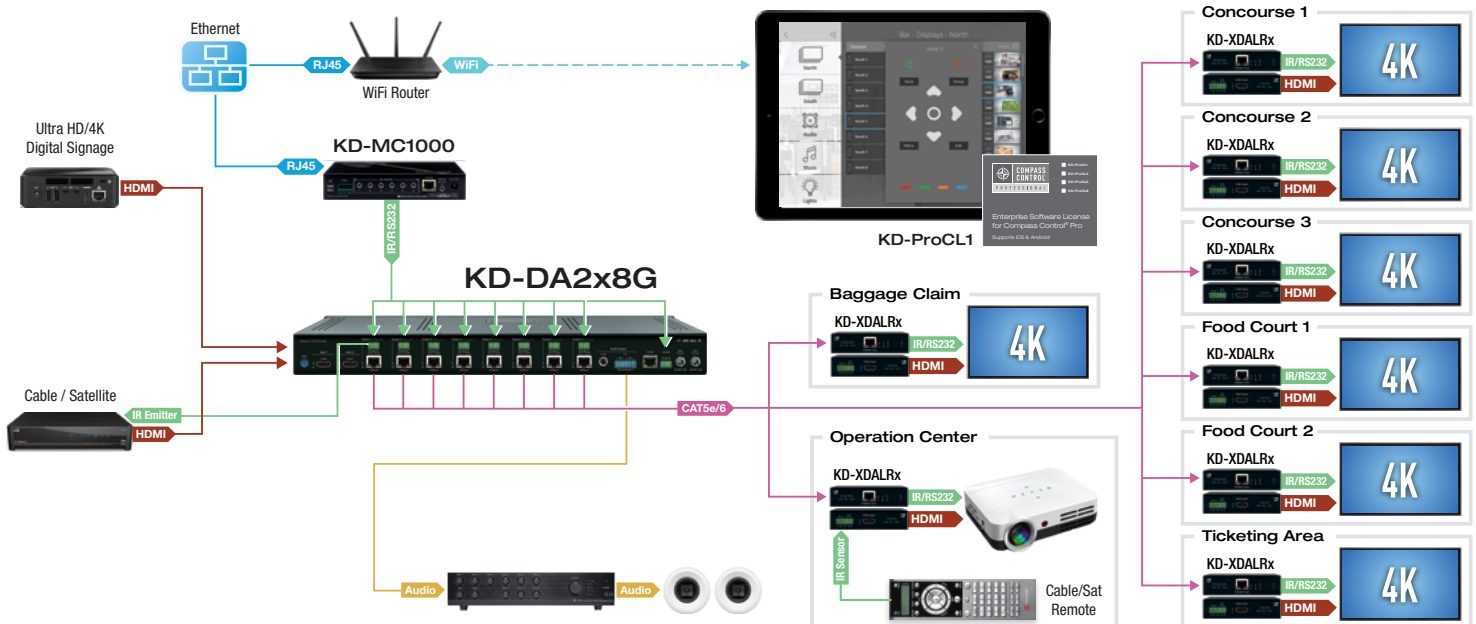
- ▶ **CEC Disconnect:** Prevents all device communication signals via CEC, ARC, and HDMI Ethernet channels
- ▶ **Control:** Front panel buttons/LEDs, Serial IR, Optical IR, RS-232 Control, and TCP/IP Control
- ▶ **Control System Support:** Key Digital® app ready. Key Digital Management Software™ Pro (KDMS™ Pro) ready, Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- ▶ **Key Digital® App & KDMS® Pro Ready:** Scan & detect population for pre-built GUI and TCP/IP control via Key Digital® iOS App and Key Digital Management Software™ Pro (KDMS™ Pro) PC Software

SPECIFICATIONS

- » Power: +48V/1.66A, 80W
- » Regulation: CE, RoHS, WEEE, EAC, EAC
- » Rack Mount: 1U, 1 Rack Width (rack ears included)
- » Enclosure: Black Metal
- » Product Dimensions: 17.3 x 5.25 x 1.72" (440 x 133.5 x 43.8 mm)
- » Shipping Carton Dimensions: 20 x 10 x 5.7" (510 x 255 x 145 mm)
- » Product Weight: 6 lb
- » Shipping Weight: 9 lb
- » Accessories: IR Remote, UL Certified Power Supply



SYSTEM EXAMPLE

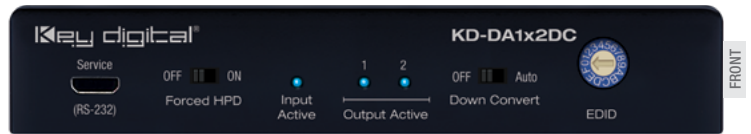


KD-DA1x2DC

4K/18G 1x2 HDMI Distribution Amplifier / 4K to 1080p Down-converter with L/R and Optical Audio De-Embedding

KEY FEATURES

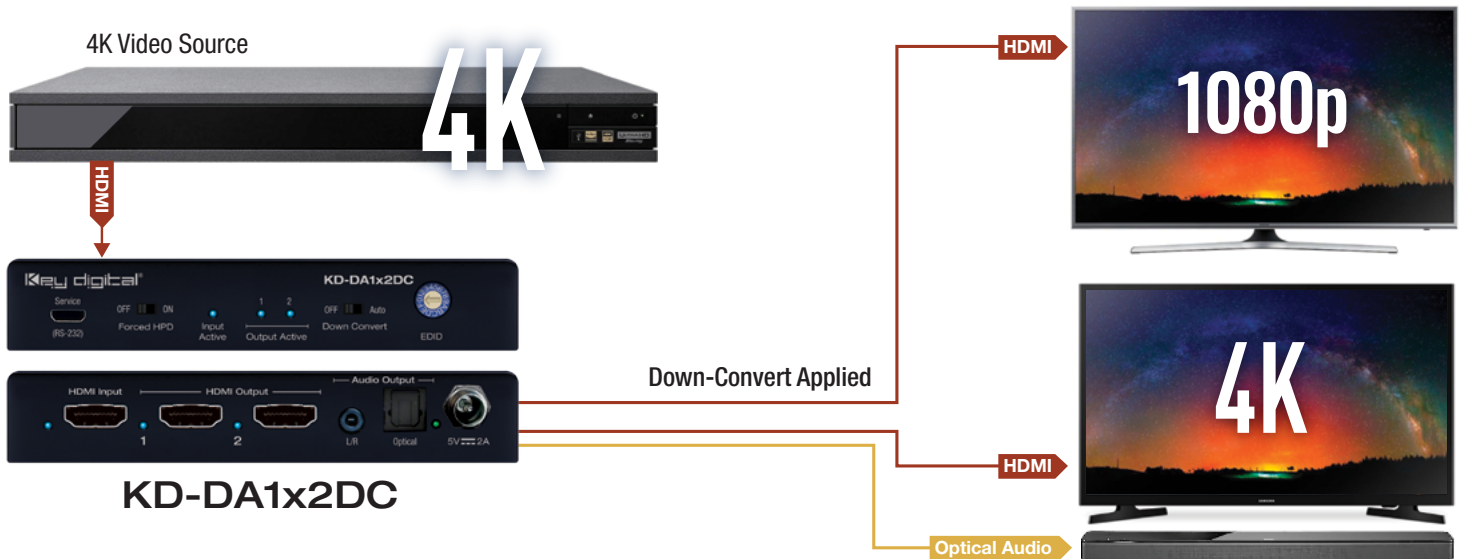
- » **HDMI Signal Distribution:** 1 HDMI source to 2 HDMI outputs/displays
- » **Ultra HD/4K Support:** 4096x2160 or 3840x2160 24/25/30/60Hz at 4:4:4 (signals up to 18Gbps bandwidth)
- » **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- » **HDR10 & Dolby Vision®:** More life-like images through a greater range of luminance levels
- » **Resolution Support:** Supports all SD, HD, and VESA (VGA, SVGA, XGA, WXGA, SXGA, UXGA) up to 4096x2160p.
- » **4K to 1080p Down Convert:** When enabled, resolution conversion is applied to individual output(s) based on EDID from the connected display
- » **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- » **Audio De-embedding:** Audio of the connected HDMI input is output at the digital Optical and analog 3.5mm stereo connectors.
- » **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, and EDID Control handshake
- » **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from output/display 1
- » **Digital Audio Format Support:** DTS-HD Master Audio™, DTS:X®, Dolby® TrueHD, Dolby Atmos®
- » **CEC Disconnect:** Prevents unwanted control of source



SPECIFICATIONS

- » Input: HDMI Connector, Type A, 19 Pin Female
- » Output (Each): HDMI Connector, Type A, 19 Pin Female
- » Bandwidth: TMDS bandwidth 18 Gbps
- » DDC Signal (Data): Input DDC Signal - 5 Volts p-p (TTL)
- » HDMI Video/Audio Signal: Input Video Signal - 1.2 Volts p-p
- » Power Supply: KD-PS5V2ASC, 5V/2A, 100-240VAC, 50-60Hz, Interchangeable head, screw-in connector
- » Product Dimensions: 4.96" x 2.74" x 0.91"
- » Packaging Dimensions: 8.27" x 5.67" x 3.15"
- » Product Weight: 0.45 lb
- » Shipping Weight: 1.12 lb

SYSTEM EXAMPLE



KD-DA1x4X

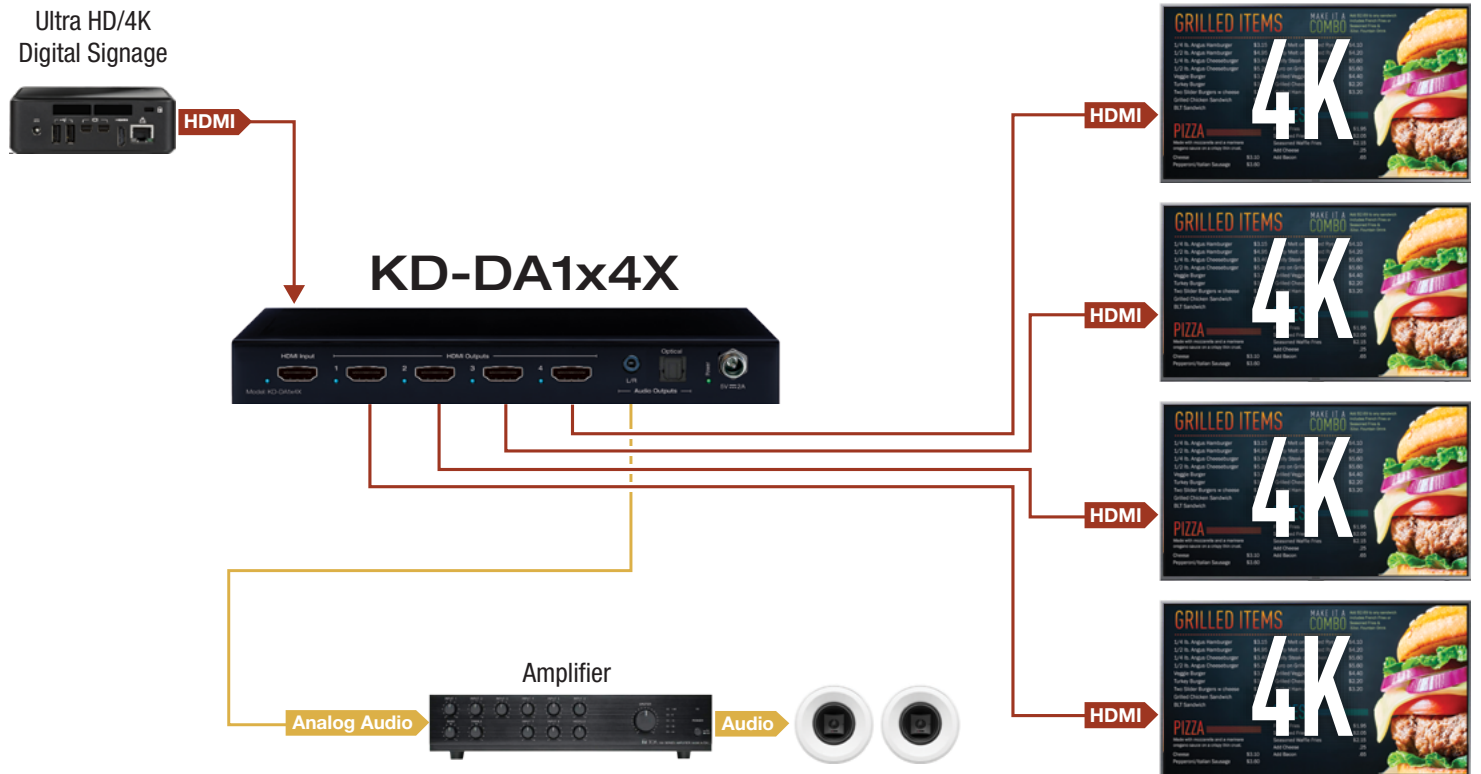
1x4 (4K@60Hz/18G/444) HDMI Distribution Amplifier with L/R / Optical Audio & De-Embedded Audio Output



SPECIFICATIONS

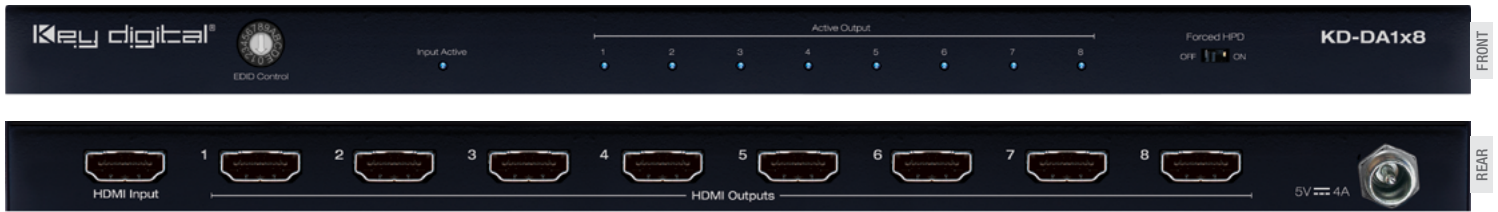
- » Input: HDMI Connector, Type A, 19 Pin Female
- » Output (Each): HDMI Connector, Type A, 19 Pin Female
- » Bandwidth: TMDS bandwidth 18 Gbps
- » DDC Signal (Data): Input DDC Signal - 5 Volts p-p (TTL)
- » HDMI Video/Audio Signal: Input Video Signal - 1.2 Volts p-p
- » Power Supply: KD-PS5V2ASC, 5V/2A, 100-240VAC, 50-60Hz, Interchangeable head, screw-in connector
- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal
- » Product Dimensions: 6.25" x 1.1" x 3.1"
- » Packaging Dimensions: 9.8" x 4.5" x 3.35"
- » Product Weight: 0.9 lb
- » Shipping Weight: 1.5 lb

SYSTEM EXAMPLE



KD-DA1x8

1x8 4K/18G HDMI Distribution Amplifier



KEY FEATURES

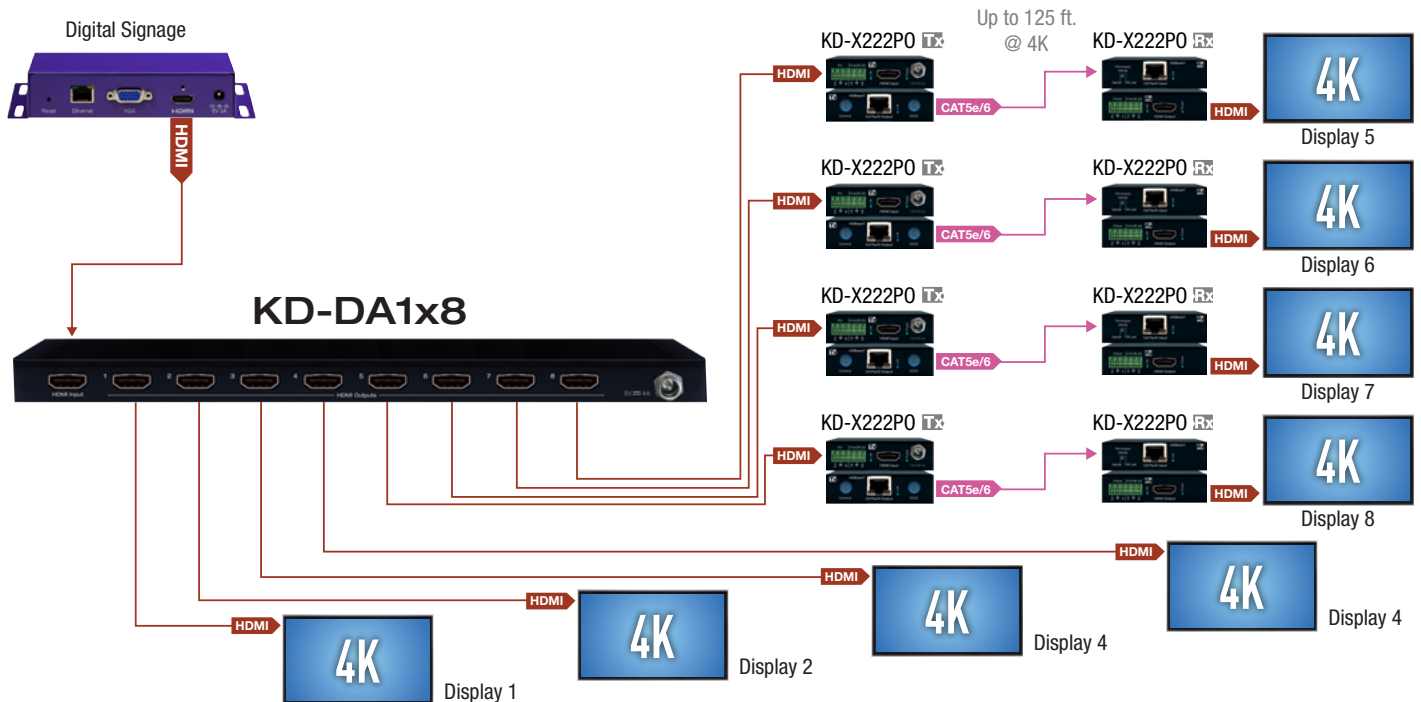
- > **Digital Distribution:** 1 HDMI Source to 8 HDMI Displays
- > **4K Support:** 4096x2160 or 3840x2160 30Hz at 4:4:4 and 60Hz at 4:4:4
- > **18 Gbps Bandwidth:** High Speed / Performance for latest HDMI standards
- > **HDR10 (High Dynamic Range):** More life-like images through a greater range of luminance levels
- > **HDCP 2.2 and HDMI Licensing:** Fully licensed and compatible with HDCP 2.2 and HDMI latest technologies
- > **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- > **EDID Control:** Internal library with 15 EDID handshakes in addition to native EDID data of output/display 1
- > **Full Buffer™ System:** Manages TMDS re-clocking / signal re-generation, HDCP source & display authentication, Hot Plug Management and EDID Control handshake
- > **Lossless Compressed Digital Audio:** Dolby® TrueHD, Dolby® Digital Plus, DTS-HD Master Audio™ and Dolby® Atmos
- > **CEC Disconnect:** Prevents all device communication signals via CEC, ARC, and HDMI Ethernet channels



SPECIFICATIONS

- » Input: HDMI Connector, Type A, 19 Pin Female
- » Output (Each): HDMI Connector, Type A, 19 Pin Female
- » Power Supply: KD-PS5V4A, 5V/4A, 100-240VAC, 50-60Hz, Interchangeable head, screw-type connector
- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal
- » Product Dimensions: 10.75" x 4.01" x 0.67"
- » Shipping Dimensions: 15.7" x 5.3" x 2.28"
- » Product Weight: 1.5 lb.
- » Shipping Weight: 2.1 lb.

SYSTEM EXAMPLE



KD-FIX418A

HDMI 4K/18G HDMI Fixer, Booster, Buffer of EDID, HDCP, Hot Plug, 18G to 10G Compress/Decompress, with L/R & PCM Audio De-Embed Output



KEY FEATURES

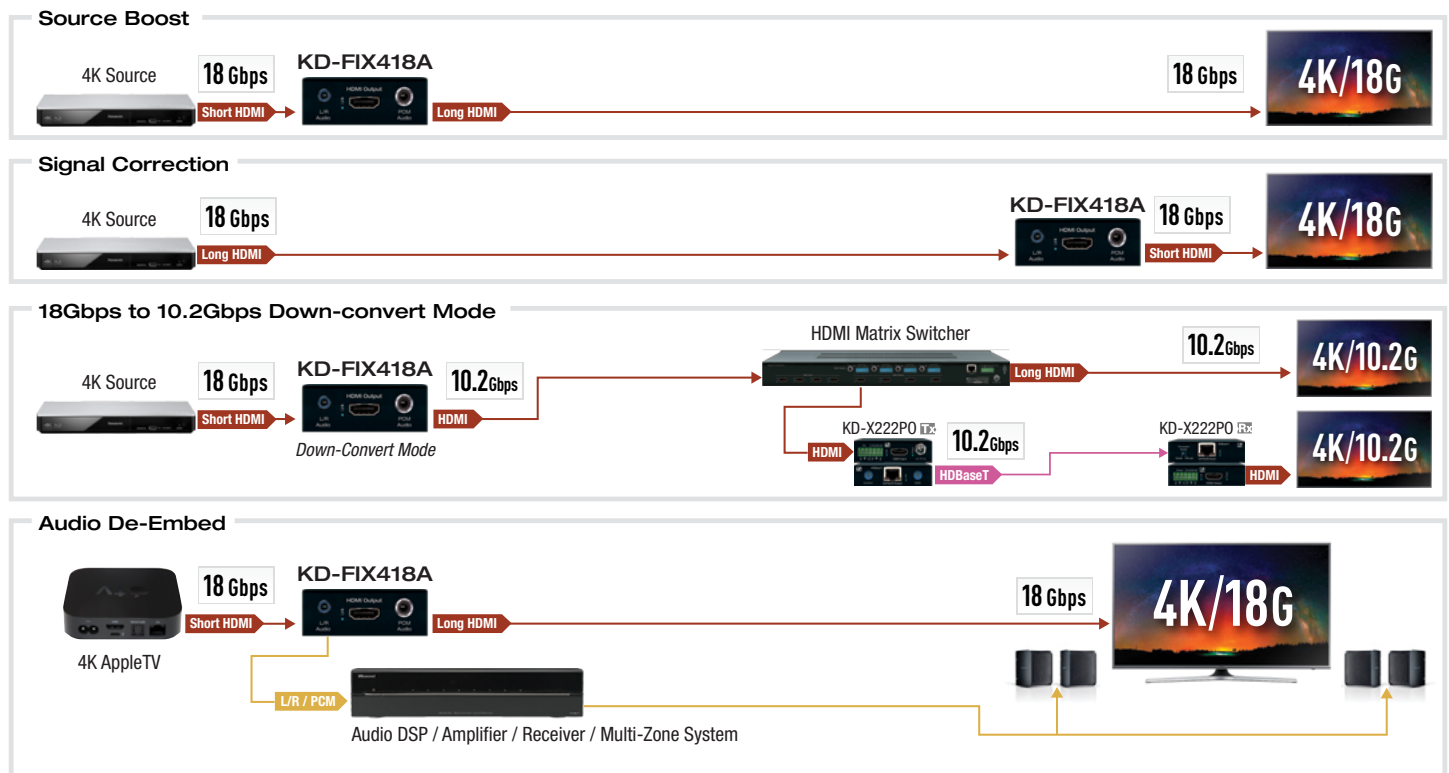
- » **HDMI Correction:** Resolves common HDMI integration obstacles related to Hot Plug Detection, EDID handshaking, HDCP authentication, and bandwidth
- » **Audio De-embedding:** HDMI input audio is de-embedded on an analog 3.5mm stereo and digital PCM connector.
- » **18G Down-Convert:** Incoming 18Gbps bandwidth HDMI signals may be down-converted for integration with existing 10.2Gbps systems/infrastructure
- » **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60Hz at 4:4:4 (signals up to 18Gbps bandwidth)
- » **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- » **HDR10 and Dolby Vision:** More life-like images through a greater range of luminance levels
- » **Resolution Support:** Supports all SD, HD, and VESA (VGA, SVGA, XGA, WXGA, SXGA, UXGA) up to 4096x2160p.
- » **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- » **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, Hot Plug management, and EDID control handshake
- » **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the output/display
- » **Lossless Compressed Digital Audio:** Dolby® TrueHD, Dolby® Digital Plus, DTS-HD Master Audio™ and Dolby® Atmos

- » **ARC Pass-thru:** From connected ARC supported display to connected ARC supported HDMI source
- » **CEC Pass-thru:** From connected display to selected HDMI source
- » **Control:** RS-232 control and connectivity status

SPECIFICATIONS

- » HDMI Input: HDMI Connector, Type A, 19 Pin Female
- » HDMI Output: HDMI Connector, Type A, 19 Pin Female
- » HDMI Bandwidth: TMDS bandwidth 18Gbps
- » Power Supply: KD-PS5V1ASC, 5V/1A, 100-240VAC, 50-60Hz, Interchangeable head, screw-in connector
- » Regulation: CE, RoHS, WEEE, EAC, EAC
- » Enclosure: Black metal
- » Power Supply: USB to micro USB cable (power adapter not included)
- » Product: 2.17" x 3.085" x 0.68", Weight: 4 oz

SYSTEM EXAMPLE



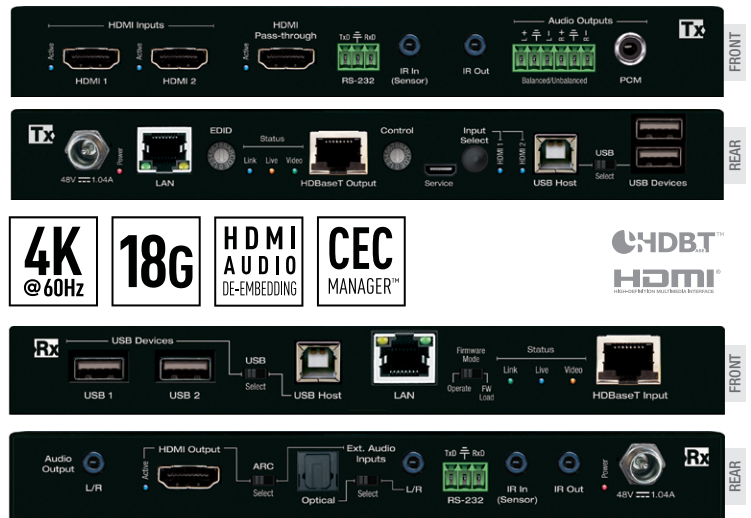
*Maximum one active/directional HDMI cable may be used for 18Gbps signals

KD-XPS22U

4K 18G Smart Extender Kit: KD-PS22UTx and KD-X100MRx.
 Extends HDMI, USB 2.0 KVM, LAN, IR, RS-232 up to 328ft (100m).
 Features 2x1 Switcher, Mirrored Output, ARC of HDMI or Optical
 Audio, Audio De-Embed, Power over CAT, CEC Display Control.
 IP Controllable, KD-App Ready, KDMS™ Pro Ready.

KEY FEATURES

- ▶ **Signal Extension:**
 - » **4K/UHD (18G):** Up to 100m / 328ft
 - » **1080p:** Up to 150m / 492ft
- ▶ **UHD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60Hz at 4:4:4 (signals up to 18Gbps bandwidth)
- ▶ **Visually Lossless Compression:** 18G enabling technology applied to all video formats exceeding 10.2Gbps to accommodate HDBaseT transmission channel
- ▶ **10G Pass-thru:** Mode enables uncompressed 10.2Gbps signal extension
- ▶ **Mirrored Outputs:** 2 HDMI and HDBaseT Outputs
- ▶ **Auto-Switching:** Automatic selection of newly detected source and switching from newly disconnected source when enabled
- ▶ **Power Over HDBaseT:** Tx can be powered by Rx unit
- ▶ **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- ▶ **HDR10:** More life-like images through a greater range of luminance levels
- ▶ **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- ▶ **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, EDID Control handshake, and Hot Plug Detection Voltage
- ▶ **EDID Management:** Internal library with 15 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the Rx display/device
- ▶ **IR Bi-Directional control:** Tx supports IR input via the included IR sensor and output via the included IR emitter
- ▶ **RS-232:** Bi-Directional control to/from Tx and Rx/Presentation Switch unit
- ▶ **Unit Control Mode:** Provides TCP/IP control and status of/from Tx unit



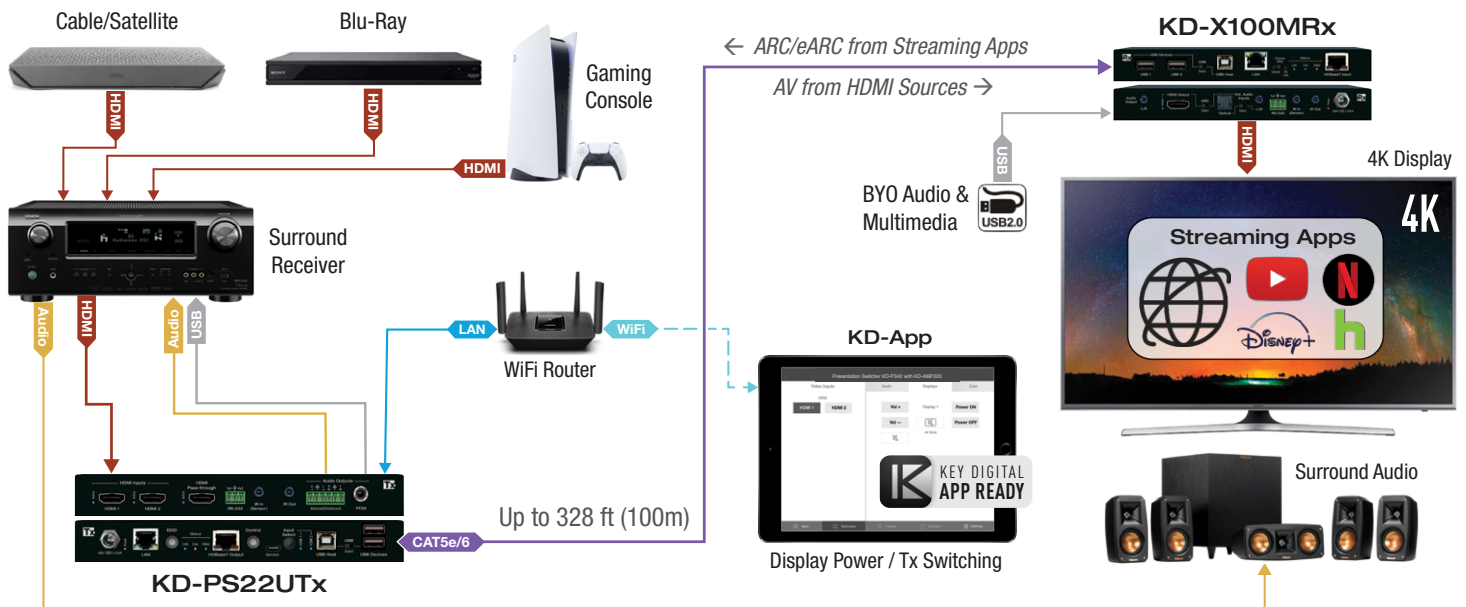
- ▶ **Soft-Codec & KVM Enabling System:** USB Host + Device ports on Tx and Rx create connectivity hub for professional USB cameras and microphones, audio DSP, keyboard, mouse, or touchscreen display with connected computer
- ▶ **ARC:** Audio may be returned from the connected display or Rx unit and output on the external analog & digital outputs
- ▶ **Surround Sound Audio:** Dolby® TrueHD, Dolby® Digital Plus, Dolby Atmos®, and DTS-HD Master Audio™ multi-channel audio formats
- ▶ **KD-App Ready:** Network scan & detect populates pre-built GUI including connected display/projector controls via CEC Manager™
- ▶ **Control System Support:** Key Digital® App Ready. Key Digital Management Software™ Pro (KDMS™ Pro) ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.

SPECIFICATIONS

- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal
- » Product: 5.5 x 4.1 x 1.43" (200.3 x 153 x 25.4mm), Weight: 1 lbs

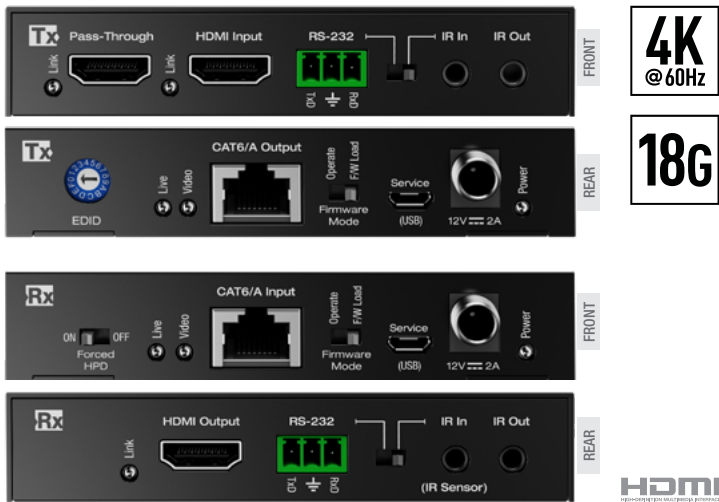


SYSTEM DESIGN EXAMPLE



KD-X444LP

4K 18G HDMI over 70m (230ft) CAT5e/6 Extender Set with Power over CAT, HDMI Pass Thru, IR, RS-232



4K @ 60Hz

18G

HDMI

KEY FEATURES

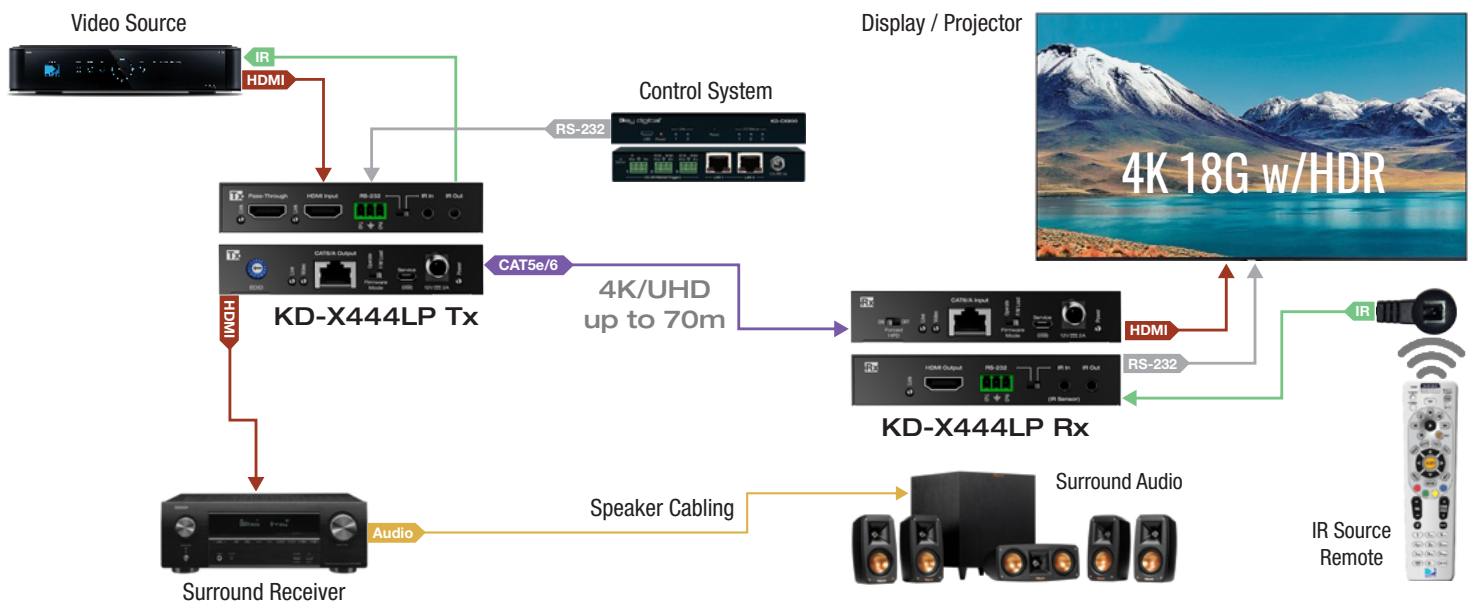
- **Single CAT5e/6 UTP/STP Extension:** Fully automatic equalization, and amplification depending on cabling length
- **4K Resolution Support:** 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- **Flexible Power over CAT (PoC):** Only one power supply needed. Connect at Tx or Rx unit.
- **Visually Lossless Compression:** 18G enabling technology applied to all video formats exceeding 10.2Gbps to accommodate transmission channel
- **Low Profile:** Super slim chassis design
- **Signal Extension:** For resolution and cable quality
 - » **4K/UHD (18G) with CAT5e/6:** Up to 230ft / 70m
 - » **4K/UHD (18G) with CAT6A STP:** Up to 328ft / 100m
 - » **1080p with CAT5e/6:** Up to 230 ft / 70m
 - » **1080p with CAT6A:** Up to 328ft / 100m
- **10G Pass-thru:** Mode enables uncompressed 10.2Gbps signal extension.
- **HDR10 (High Dynamic Range):** More life-like images through a greater range of luminance levels
- **HDCP 2.2:** Compliancy up to HDCP 2.x and backward compliant
- **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- **IR Sensor:** Sensor powering via +5V on IR In ports collects line-of-sight IR from remote(s) without external IR connecting block
- **Up/Down IR:** Two channels of IR enable control to/from devices or control systems connected to Tx and Rx units
- **RS-232:** Bi-Directional control to/from Tx and Rx unit on Phoenix connector
- **Full Buffer Technology:** Key Digital's proprietary suite of EDID, HDCP, TMDS, and HPD management to overcome Pro AV installation obstacles
- **EDID Management:** Internal library with 14 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from CAT5e/6 or HDMI pass-thru outputs
- **HDCP Authentication:** HDCP sources are authenticated by HDCP key on transmit unit, for one-to-one topology

- **Hot Plug Detection Control:** Enables integrator to choose if active signal voltage is forced to connected display/output device
- **TMDS Re-Clocking:** Re-generation of TMDS (AV signal) channel data at Transmit unit for brand new AV signal
- **Surround Audio Support:** on HDMI pass-thru and UHDoTP outputs:
 - » **HDMI Pass-Thru:** Supports Dolby®, Dolby® TrueHD, DTS™ and DTS-HD™ (formats up to 7.1)
 - » **CAT5e/6 Output:** Supports Dolby®, DTS™ (formats up to 5.1/6.1)

SPECIFICATIONS

- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal
- » Product Dimensions (ea) (LxWxH): 4.3" x 4.12" x 0.82" (109.2 x 104.6 x 20.8mm)
- » Product Weight (ea): 0.595 lbs (0.27 KG)
- » Package Dimensions (LxWxH): 10.24" x 5.67" x 3.15" (260 x 144 x 80mm)
- » Package Weight: 2.34 lbs (1.06 KG)

SYSTEM DESIGN EXAMPLE

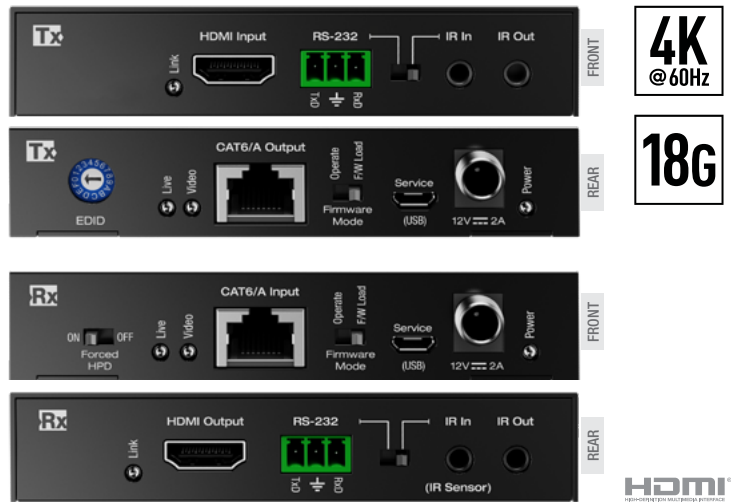


KD-X444SP

4K 18G HDMI over 50m (164ft) CAT5e/6 Extender Set with HDR, Power over Cat, IR or RS-232

KEY FEATURES

- › **Single CAT5e/6 UTP/STP Extension:** Fully automatic equalization, and amplification depending on cabling length
- › **4K Resolution Support:** 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- › **Flexible Power over CAT (PoC):** Only one power supply needed. Connect at Tx or Rx unit.
- › **Visually Lossless Compression:** 18G enabling technology applied to all video formats exceeding 10.2Gbps to accommodate transmission channel
- › **Low Profile:** Super slim chassis design
- › **Signal Extension:** For resolution and cable quality
 - › **4K/UHD (18G) / 4K 10G / 1080p with CAT5e/6:** Up to 164ft / 50m
- › **10G Pass-thru:** Mode enables uncompressed 10.2Gbps signal extension.
- › **HDR10 (High Dynamic Range):** More life-like images through a greater range of luminance levels
- › **HDCP 2.2:** Compliancy up to HDCP 2.x and backward compliant
- › **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- › **IR Sensor:** Sensor powering via +5V on IR In ports collects line-of-sight IR from remote(s) without external IR connecting block
- › **Up/Down IR:** Two channels of IR enable control to/from devices or control systems connected to Tx and Rx units
- › **RS-232:** Bi-Directional control to/from Tx and Rx unit on Phoenix connector
- › **Full Buffer Technology:** Key Digital's proprietary suite of EDID, HDCP, TMDS, and HPD management to overcome Pro AV installation obstacles
- › **EDID Management:** Internal library with 14 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from CAT5e/6 or HDMI pass-thru outputs
- › **HDCP Authentication:** HDCP sources are authenticated by HDCP key on transmit unit, for one-to-one topology



4K
@ 60Hz

18G

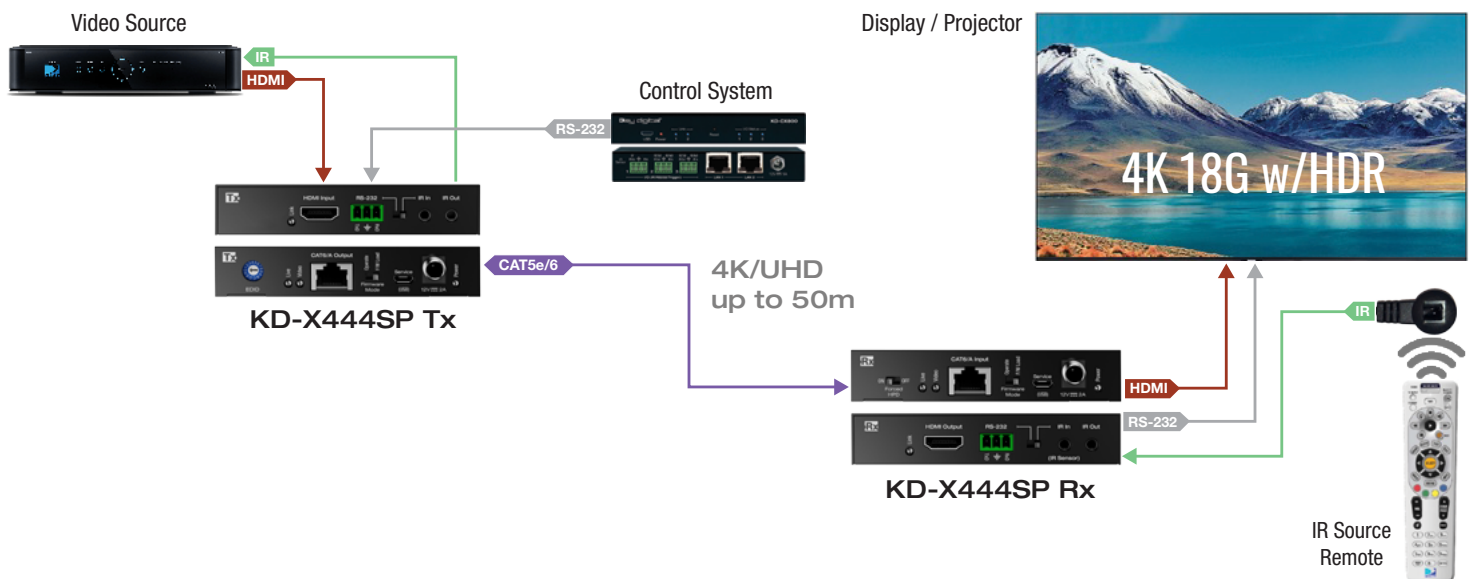


- › **Hot Plug Detection Control:** Enables integrator to choose if active signal voltage is forced to connected display/output device
- › **TMDS Re-Clocking:** Re-generation of TMDS (AV signal) channel data at Transmit unit for brand new AV signal
- › **Surround Audio Support:** Up to Dolby®, DTS™ (formats up to 5.1/6.1)

SPECIFICATIONS

- › Regulation: CE, RoHS, WEEE, EAC
- › Enclosure: Black Metal
- › Product Dimensions (ea) (LxWxH): 4.3" x 4.12" x 0.82" (109.2 x 104.6 x 20.8mm)
- › Product Weight (ea): 0.595 lbs (0.27 KG)
- › Package Dimensions (LxWxH): 10.24" x 5.67" x 3.15" (260 x 144 x 80mm)
- › Package Weight: 2.34 lbs (1.06 KG)

SYSTEM DESIGN EXAMPLE

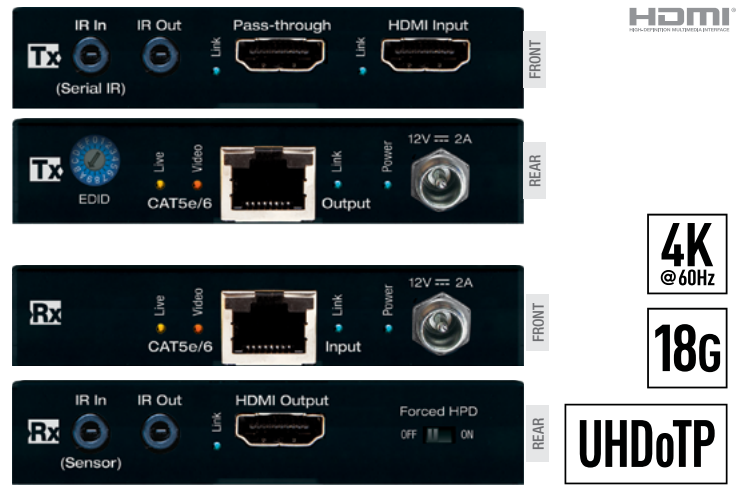


KD-EX18G

4K UHD@TP with HDR HDMI Extender Tx + Rx Kit.
 Extends 4K 18G to 35m (115ft), 1080p to 50m (164ft).
 4K to 1080p Down Convert, HDMI Pass Thru, Power over CAT,
 2 Way IR, Handshake Control, Forced HPD

KEY FEATURES

- ▶ **UHD@TP via Single CAT5e/6 UTP/STP Extension:** With fully automatic adjustment of feedback, equalization, and amplification depending on cabling length
- ▶ **4K Resolution Support:** 4096x2160 or 3840x2160 24/25/30/60Hz at 4:4:4 (signals up to 18Gbps bandwidth)
- ▶ **Visually Lossless Compression:** 18G enabling technology applied to all video formats exceeding 10.2Gbps to accommodate UHD@TP transmission channel
- ▶ **4K to 1080p Down Convert:** Optional resolution conversion applied at UHD@TP output provides added integration options in retrofit installations as well as added distance performance
- ▶ **10G Pass-thru:** Mode enables uncompressed 10.2Gbps signal extension
- ▶ **Flexible Power over CAT (PoC):** Only one power connection needed. Tx may power Rx, or Rx may power Tx.
- ▶ **Low Profile:** Slim chassis design
- ▶ **Signal Extension:** For resolution and cable quality
 - » **4K/UHD:** Up to 35m (115ft) using CAT5e/6, up to 40m (131ft) using CAT6A STP
 - » **1080p:** Up to 50m (164ft) maximum, up to 60m (197ft) using CAT6A STP
 - » **Minimum:** 5m (17ft) CAT5e/6 cable length required for all resolutions
- ▶ **HDR10 (High Dynamic Range):** More life-like images through a greater range of luminance levels
- ▶ **HDCP 2.2:** Compliancy up to HDCP 2.2 and backward compliant
- ▶ **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- ▶ **EDID Control:** Internal library with 15 EDID handshakes including 4K with HDR in addition to native EDID data from Output/Display device connected to Rx
- ▶ **Hot Plug Detection Control:** Enables integrator to choose if active signal voltage is forced to connected display/output device
- ▶ **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication with source & display, EDID handshake control, and Hot Plug Detection control

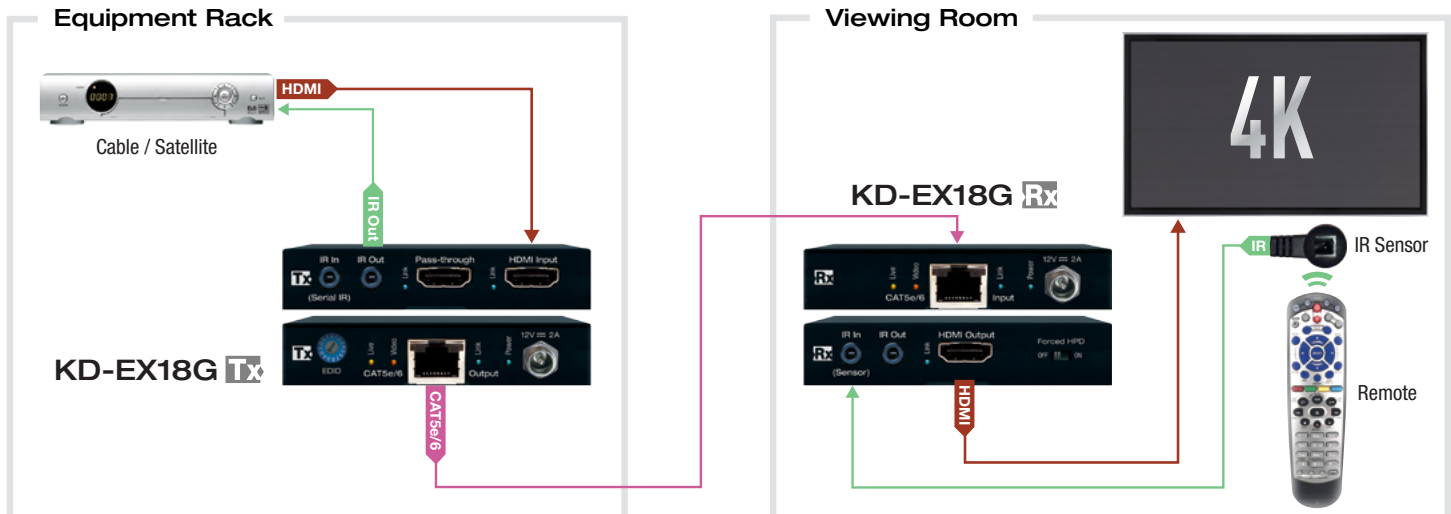


- ▶ **IR Sensor:** Sensor powering via +5V on IR In ports collects line-of-sight IR from remote(s) without external IR connecting block
- ▶ **Up/Down IR:** Two channels of IR enable control to/from devices or control systems connected to Tx and Rx units
- ▶ **HDMI Pass-Through:** Enables connection to local monitor or AV Receiver.
- ▶ **Surround Audio Support:** On HDMI pass-thru and UHD@TP outputs:
 - » **HDMI Pass-Thru:** Supports Dolby®, Dolby® TrueHD, DTS™ and DTS-HD™ (formats up to 7.1)
 - » **UHD@TP Output:** Supports Dolby®, DTS™ (formats up to 5.1/6.1)

SPECIFICATIONS

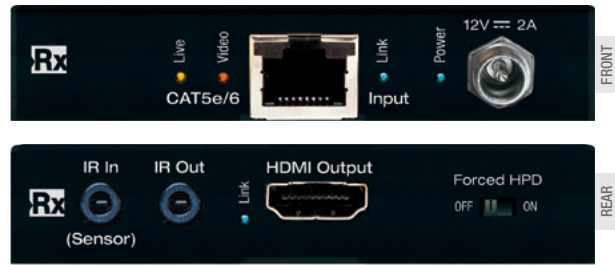
- ▶ Bandwidth: TMDS bandwidth 18Gbps
- ▶ HDMI Connector: Type A, 19 Pin Female
- ▶ RJ45 Connector: Shielded Link Connector, UHD@TP
- ▶ IR In & Out Connectors (Each): 3.5mm
- ▶ Power: (1) 12V/2A, 24W DC Power Supply (Screw-In Type). 100-240VAC, 50-60Hz. Interchangeable transformer plug with screw-in connector. SKU: KD-PS12V2ASC
- ▶ Regulation: CE, RoHS, WEEE, EAC
- ▶ Enclosure: Black Metal
- ▶ Product (Each): 4.1" x 2.8" x 0.875", Weight: 0.75 lbs
- ▶ Accessories: 4x Mounting Brackets, 1x IR Emitter, 1x IR Sensor, 1x Power Supply

SYSTEM DESIGN EXAMPLE



KD-EX18GRx

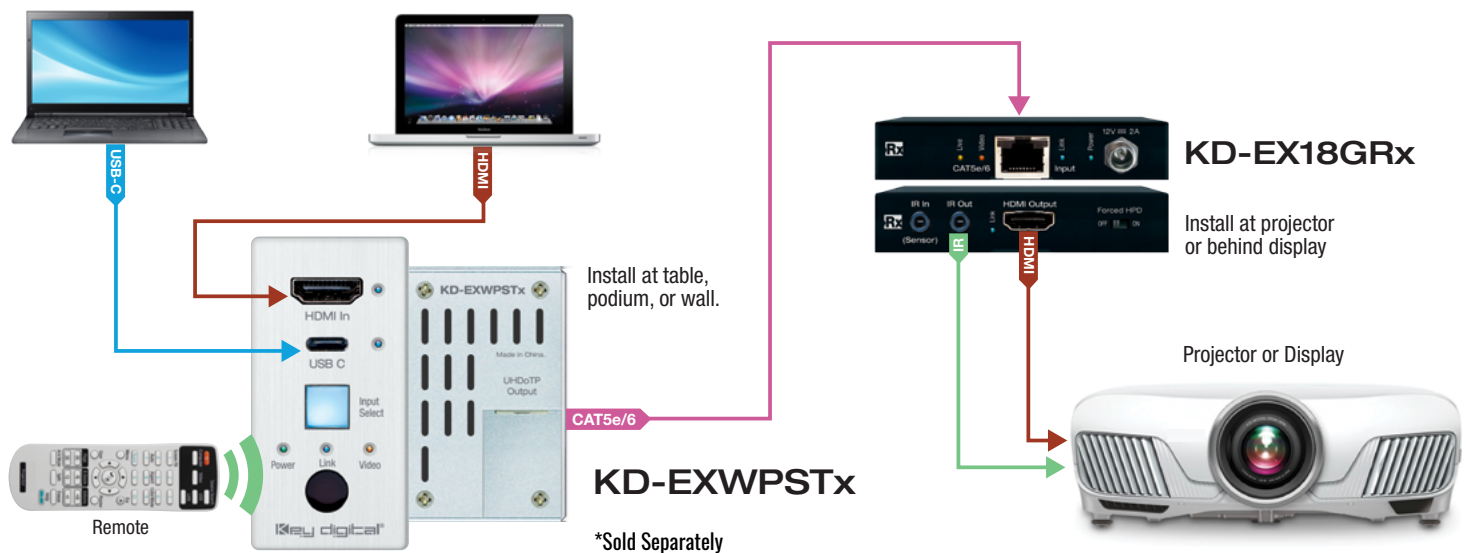
4K 18G UHD@TP 35m Rx with Power over Cat, Two-Way IR, Forced Hot Plug Detection



SPECIFICATIONS

- » Inputs Rx (Each): 1 UHD@TP, 1 IR
- » Outputs Rx (Each): 1 HDMI, 1 IR
- » Bandwidth: TMDS bandwidth 18Gbps
- » Deep Color Support: Digital video formats in Deep Color Mode up to 12 bits per color
- » DDC Communication: EDID and HDCP Bi-directional buffering from Display to Source
- » HDMI Connector: Type A, 19 Pin Female
- » RJ45 Connector: Shielded Link Connector, UHD@TP
- » IR In & Out Connectors (Each): 3.5mm
- » Power: (1) 12V/2A, 24W DC Power Supply (Screw-In Type). 100-240VAC, 50-60Hz. Interchangeable transformer plug with screw-in connector. SKU: KD-PS12V2ASC
- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal
- » Product: 4.1" x 2.8" x 0.875", Weight: 0.75 lbs

SYSTEM DESIGN EXAMPLE



KD-EXWPSTx

Single Gang HDMI USB-C over 50m CAT5e/6 Wall Plate Switcher Transmitter. 4K/UHD, 18G, Power over CAT, Auto Switching.

KEY FEATURES

- » **Presentation Switching:** 1 HDMI and 1 USB-C selected by push button, auto switching, or USB
- » **Rx Options:** Native integration with KD-EX18GRx (sold separately). Future Rx options will be released.
- » **Auto-Switching:** Automatic selection of newly detected source and switching from newly disconnected source when enabled.
- » **Decora Included:** Brushed aluminum decora face plate included.
- » **Ultra HD/4K:** Supports up to 4096x2160 or 3840x2160 24/25/30/60hz at 4:4:4 (signals up to 18Gbps bandwidth)
- » **Visually Lossless Compression:** 18G enabling technology applied to all video formats exceeding 10.2Gbps to accommodate UHDoTP transmission channel
- » **4K to 1080p Down Convert:** Optional resolution conversion applied at UHDoTP output provides added integration options in retrofit installations as well as added distance performance
- » **10G Pass-thru:** Mode enables uncompressed 10.2 Gbps signal extension
- » **Power over CAT:** Wall plate Tx unit powered by KD-EX18GRx (sold separately)
- » **Ease of Integration:** Complete configuration using Key Digital Management Software™ Pro
- » **HDCP Licensing:** Fully licensed and compatible with HDCP 2.2
- » **HDR10 (High Dynamic Range):** More life-like images through a greater range of luminance levels
- » **Signal Extension:** For resolution and cable quality
 - » 4K/UHD (18G): Up to 35m / 115ft
 - » 1080p: Up to 50m / 164ft
 - » Minimum: 5m / 17ft CAT5e/6 cable length required for all resolutions
- » **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication to source & display, EDID Control handshake, and Hot Plug Detection Voltage
- » **EDID Management:** Internal library with 12 internal EDID handshakes including 4K with HDR in addition to native EDID data copied from the Rx IR Sensor: Wall-plate collects line-of-sight IR from remote(s) without external IR wiring
- » **Surround Audio Support:** Dolby®, DTS™ (formats up to 5.1 / 6.1)

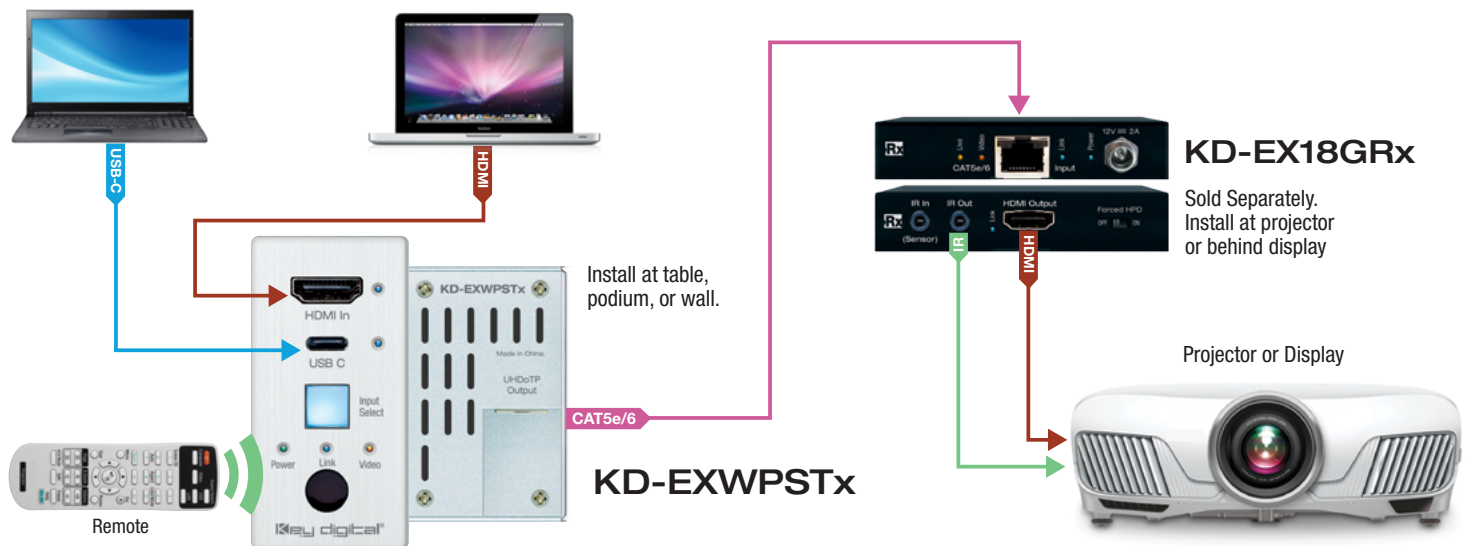


SPECIFICATIONS

- » AV Inputs: 1x HDMI, 1x USB C
- » AV Outputs: 1x UHDoTP RJ45
- » DDC Signal (Data): Input DDC Signal: 5 Volts p-p (TTL)
- » HDMI Video/Audio Signal: Input Video Signal: 1.2 Volts p-p
- » USB C Signal: Input Video Signal: 1.2 Volts p-p
- » RJ45 Connectors: Shielded Link Connector, UHDoTP
- » Unit Control: TCP/IP on RJ45, Bi-directional RS-232, Serial IR, IR sensor, USB Micro
- » RS-232 Connector: 1x 3-pin terminal for unit control, 2x 3-pin terminal for pass-thru to/from UHDoTP Input and UHDoTP output
- » IR: 1x IR Sensor
- » Regulation: CE, RoHS, WEEE, EAC
- » Wall plate: U.S. 1-gang wall plate in aluminum enclosure
- » Decora plate: Brushed aluminum
- » Product: 1.92 x 4.13 x 1.42" (49 x 105 x 36.2 mm) / Weight: 0.6 lbs / 0.27 kg
- » Packaging: 7.28 x 3.35 x 2.17" (185 x 85 x 55mm) / Weight: 3.0 lbs / 1.36 kg



SYSTEM DESIGN EXAMPLE



KD-X444S

4K/18G HDBT POH Extenders
(Includes KIT Tx/Rx 4K/40meters 1080P/70meters)

KEY FEATURES

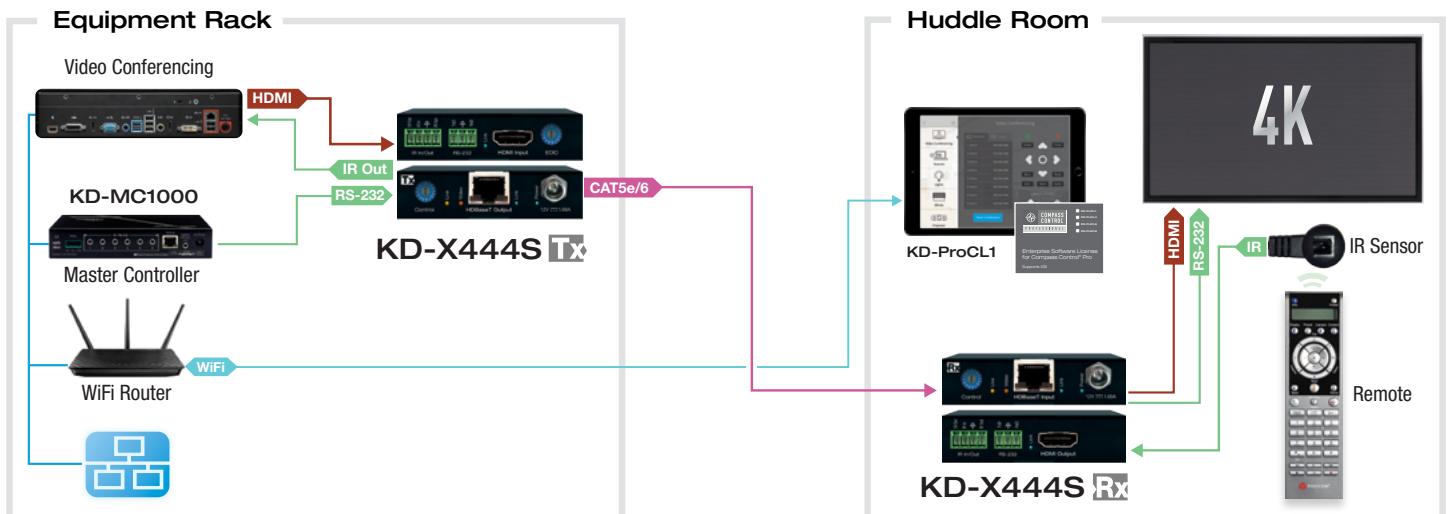
- › **HDBaseT via Single CAT5e/6 UTP/STP Extension:** With fully automatic adjustment of feedback, equalization, and amplification depending on cabling length
- › **4K Support:** 4096x2160 or 3840x2160 24/25/30/60Hz at 4:4:4 (signals up to 18Gbps bandwidth)
- › **Flexible Power over HDBaseT:** Only one power connection needed. Tx may power Rx, or Rx may power Tx.
- › **Low Profile:** Super slim chassis design
- › **Signal Extension:** For resolution and cable quality
 - › **4K/UHD:** Up to 125 ft. (40m) using CAT5e/6
 - › **1080p:** Up to 230 ft. (70m) maximum (Valens VS10)
- › **10G Pass-thru:** Mode enables uncompressed 10.2Gbps signal extension
- › **HDR10 (High Dynamic Range):** More life-like images through a greater range of luminance levels
- › **HDCP 2.2:** Compliancy up to HDCP 2.2 and backward compliant
- › **Deep Color Support:** Up to UHD/4K 30Hz 4:4:4/12 bits or 60Hz 4:4:4/8 bit
- › **EDID Control:** Internal library with 15 EDID handshakes including 4K with HDR in addition to native EDID data from Output/Display device connected to Rx
- › **Hot Plug Detection Control:** Enables integrator to choose if active signal voltage is forced to connected input and output devices
- › **Full Buffer System™:** Manages TMDS re-clocking / signal re-generation, HDCP authentication with source & display, EDID Control handshake, and Hot Plug Detection control
- › **IR Sensor:** Sensor powering via +5V on IR In ports collects line-of-sight IR from remote(s) without external IR connecting block
- › **Up/Down IR:** Two channels of IR enable control to/from devices or control systems connected to Tx and Rx units
- › **RS-232:** Bi-Directional control to/from Tx and Rx unit on Phoenix connector
- › **Lossless compressed digital audio:** Support for Dolby® TrueHD, Dolby® Digital Plus, Dolby Atmos®, and DTS-HD Master Audio™
- › **CEC Pass-thru:** For inter-device control between input and output HDMI channel



SPECIFICATIONS

- › Inputs Tx (Each): 1 HDMI, 1 IR, 1 RS-232
- › Outputs Tx (Each): 1 HDBaseT, 1 IR, 1 RS-232
- › Inputs Rx (Each): 1 HDBaseT, 1 IR, 1 RS-232
- › Outputs Rx (Each): 1 HDMI, 1 IR, 1 RS-232
- › Regulation: CE, RoHS, WEEE, EAC, EAC
- › Enclosure: Black Metal
- › Product (Each): 4.1" x 2.8" x 0.875", Weight: 0.75 lbs
- › Accessories: 4x Mounting Brackets, 1x IR Emitter, 1x IR Sensor, 1x 3-pin Phoenix Connector, 1x 4-pin Phoenix Connector
- › Power: (1) 12V/1.66A, 20W DC Power Supply (Screw-In Type), 100-240VAC, 50-60Hz. Interchangeable transformer plug with screw-in connector. SKU: KD-PS20W12VQ

SYSTEM EXAMPLE



KD-VCS500

Video Converter and Scaler



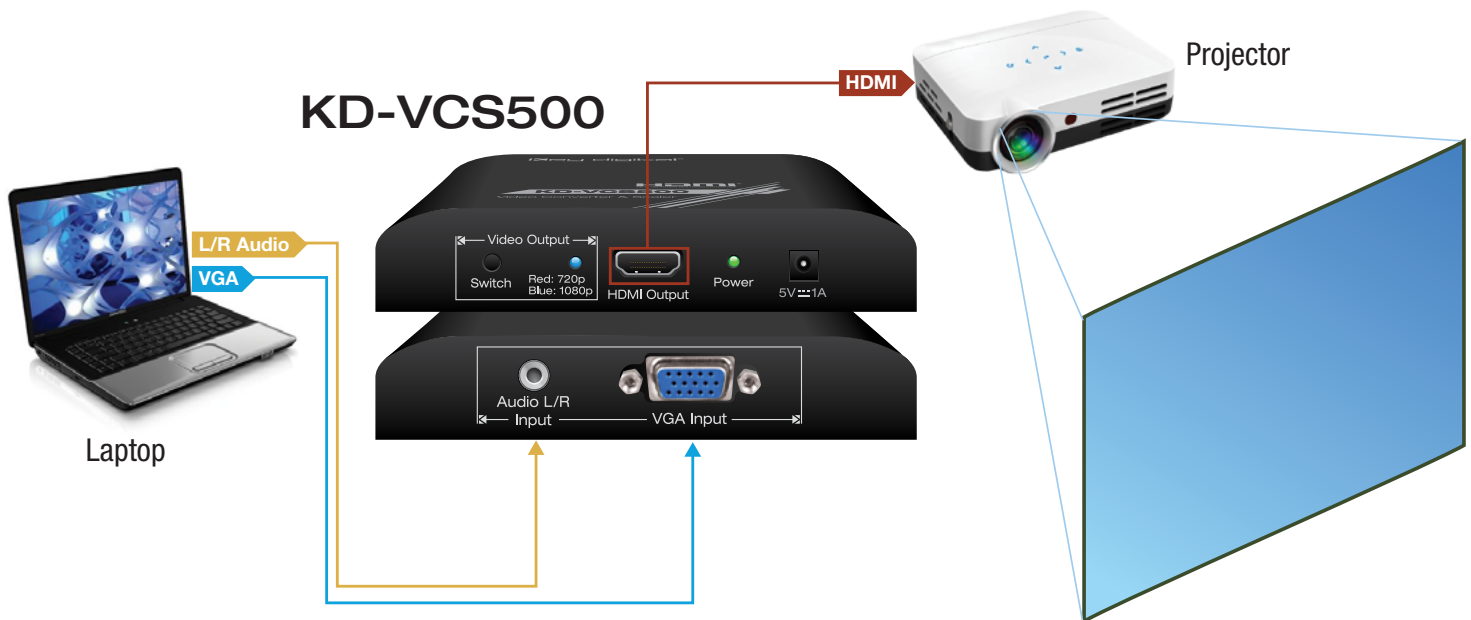
KEY FEATURES

- > **Converts:** VGA video and analog audio to digital HDMI video and audio
- > **Embeds:** Incoming analog audio onto the HDMI output
- > **Up-scales:** VGA resolutions to 720p or 1080p
- > **Supports the following VGA resolutions:**
 - > 640x480@60,
 - > 800x600@60,
 - > 1024x768@60,
 - > 1152x864@60Hz,
 - > 1280x720@60, 1280x768@60, 1280x800@60, 1280x960@60,
 - > 1360x768@60, 1366x768@60, 1280x960@60, 1280x1024@60,
 - > 1440x900@60/75, 1600x1050@60, 1680x1050@60, 1600x1200@60,
 - > 1920x1080@60, 1920x1200@60
- > **Resolution Selection:** Simple switching between 720p and 1080p up-scaling
 - > Dual-color LED allows for easy identification of resolution mode
- > **HDMI® and HDCP Licensing:** Fully licensed and compatible with all HDMI and HDCP technologies
- > **Ultra small design**

SPECIFICATIONS

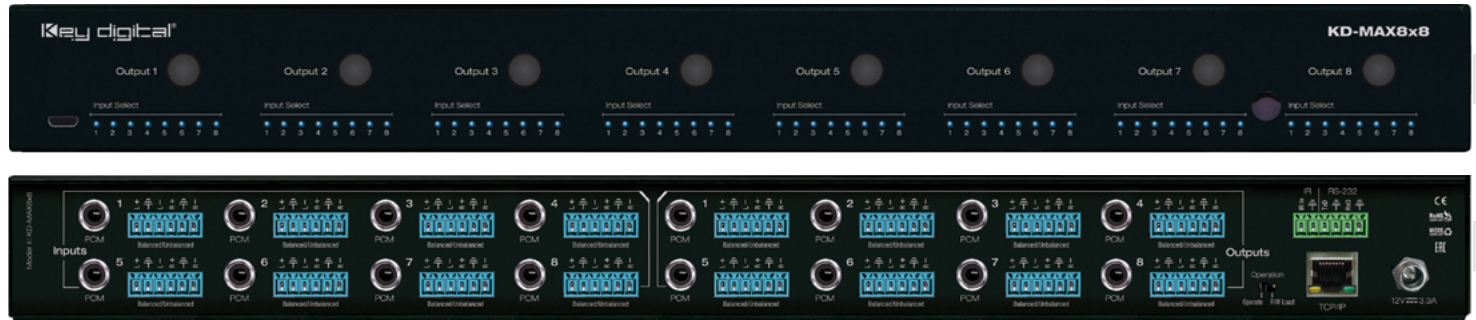
- > Inputs: (1) VGA, (1) 3.5mm stereo audio
- > Outputs: 1 HDMI
- > DDC Signal (Data): 5 Volts p-p (TTL)
- > DDC Communication: EDID and HDCP Bi-directional transparency from Display to Source
- > Power Supply: KD-PS5V1A, 5V/1A, 100-240VAC, 50-60Hz, Interchangeable head
- > Regulation: CE, RoHS, WEEE, EAC
- > Enclosure: Black Plastic
- > Product Dimensions: 4.68" x 2.91" x 0.9", Weight: 0.8 lbs.
- > Shipping Dimensions: 7" x 5.3" x 2.6", Weight: 1 lb.

SYSTEM DESIGN EXAMPLE



KD-MAX8x8

8x8 Audio Matrix Switcher with built-in Audio DSP



KEY FEATURES

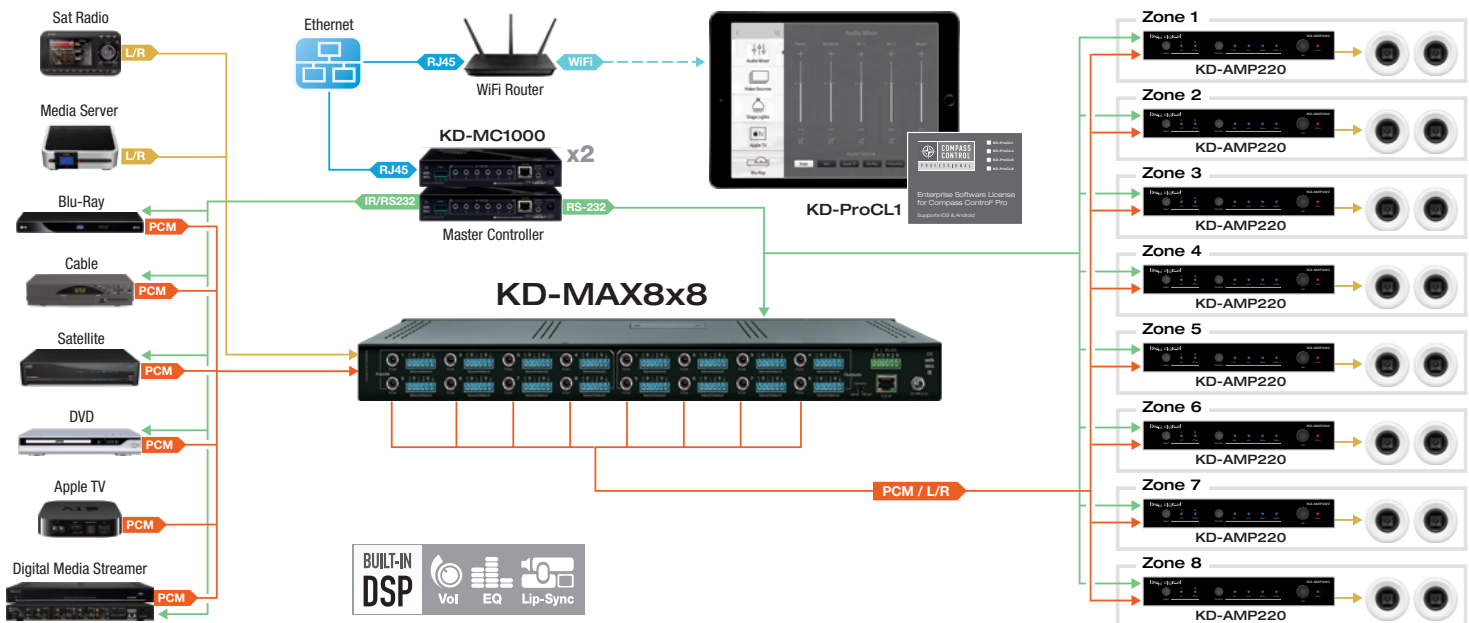
- » **Multi-format Audio Multiplexing:** DSP per output for independent matrix selection
 - » Analog to Analog Matrix with DSP
 - » Digital to Analog Matrix with DSP
 - » Digital to Digital Matrix
 - » Analog to Digital Matrix
- » **Audio DSP:** Variable level settings for volume, muting, 3-band EQ, balance, and lip-sync delay per balanced output
- » **Audio Delay:** Variable level set from 0ms to 170ms
- » **Audio Conversion:** Analog to digital. Digital to analog
- » **Balanced or Unbalanced:** Input audio type may be specified per input
- » **Lossless Compressed Digital Audio:** Dolby® and DTS surround up to 5.1ch pass-thru
- » **Long Cable Runs:** Enabled by balanced audio connection, signals may be run up to 1,000 ft.
- » **Control Integration:** TCP/IP, RS-232, and USB with full bi-directional operation, front panel push buttons and LEDs, front/rear optical IR, serial IR,
- » **Control System Support:** Key Digital® App ready, Compass Control® Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.
- » **Key Digital® App Ready:** Scan & detect population for pre-built GUI and TCP/IP control via Key Digital® App

SPECIFICATIONS

- » Input (each): Balanced/unbalanced line level audio on 6-pin terminal block. Accepts 2VRMS line audio input with a sampling rate of 48KHz
- » Input (each): RCA female for digital audio following SPDIF format (IEC 60958). Supports sampling rate up to 192KHz
- » Output (each): Balanced/unbalanced line level audio on 6-pin terminal block. Drives 2VRMS line audio input with a sampling rate of 48KHz
- » Output (each): RCA female for digital audio following SPDIF format (IEC 60958). Supports sampling rate up to 192KHz
- » Regulation: CE, RoHS, WEEE, EAC
- » Rack Mount: 1U, 1 Rack Width (rack ears included)
- » Enclosure: Black Metal
- » Product Dimensions: 17.5" x 7" x 1.75"
- » Shipping Carton Dimensions: 23.5" x 11" x 4.5"
- » Product Weight: 6 lb
- » Shipping Weight: 9 lb.



SYSTEM DESIGN EXAMPLE



KD-AMP220

2Ch 20 WPC @ 8 Ohm, 40 WPC @ 4 Ohm,
Compact Digital Audio Amplifier



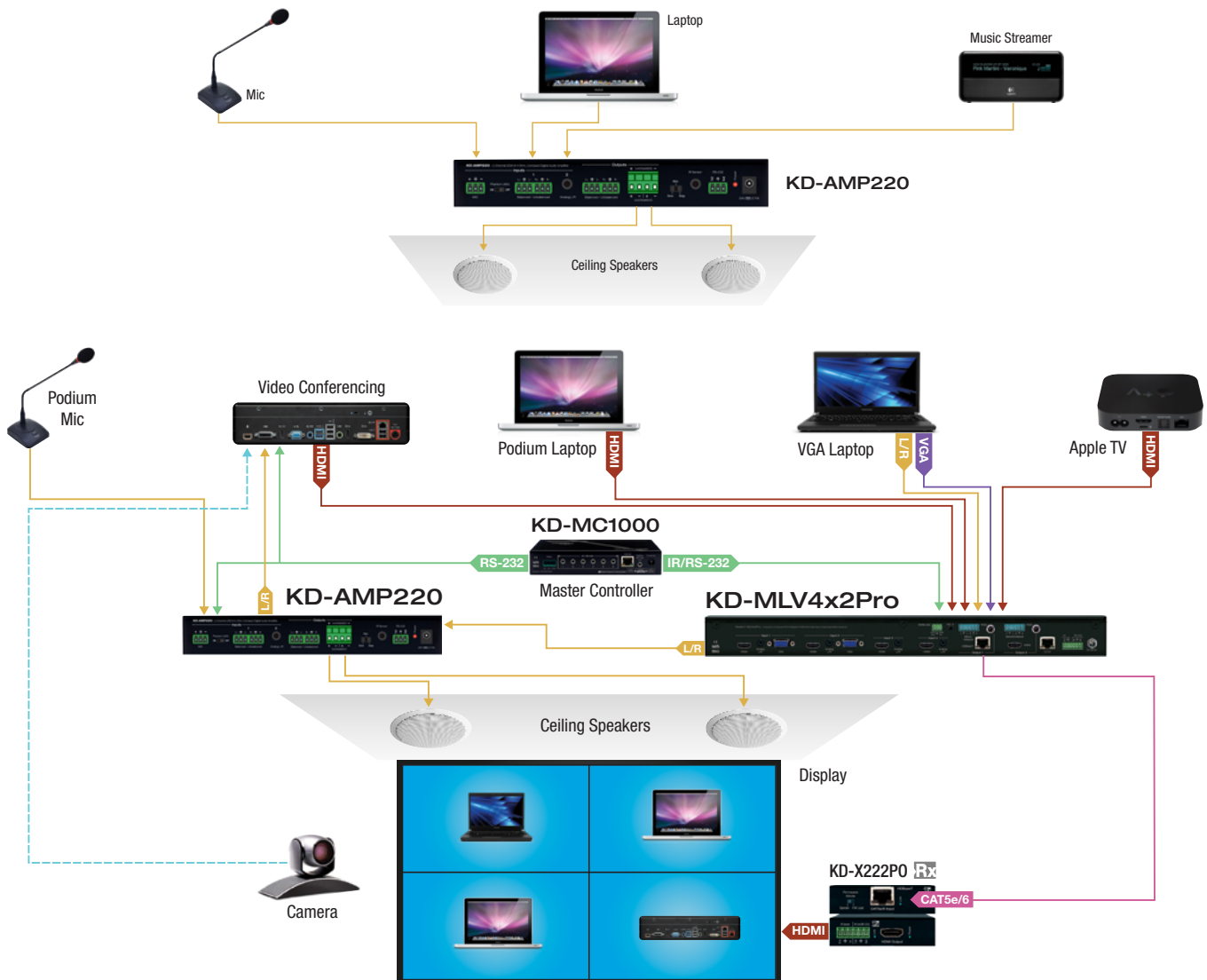
KEY FEATURES

- > **Class D Amplification:** 2Ch 20 WPC @ 8 Ohm, 40 WPC @ 4 Ohm, bridged
- > **Mixing:** Output is a mix of microphone and the selected audio input
- > **Signal Processing:**
 - » Variable volume level set for each input
 - » Variable volume, bass, and treble for output
- > **Inputs:** Microphone (3-pin balanced, condenser/dynamic), 6-pin balanced stereo, 3.5mm stereo
- > **Phantom Power:** 48V phantom power for integration with condenser microphones
- > **Outputs:** Pre-amp line level (6-pin balanced), speaker level
- > **Speaker Level Output:** Bridge, stereo, or mono modes selectable
- > **Noise gate:** For consistent audio levels, prevention of ambient noise
- > **Control:** Front panel, RS-232, IR with external IR Sensor (included)
- > **Compact Size:** 4.84"(W) x 3.42"(D) x 1.3"(H)

SPECIFICATIONS

- » Frequency Response: 20Hz – 20KHz
- » Signal to Noise Ratio: <80dB
- » Total Harmonic Distortion: <1% @ 1KHz, <0.3% @ 20KHz
- » Input Impedance:
 - » Mic: 35Ω with 48V phantom power applied, 10K Ω without
 - » Line: >10K Ω
- » Output Impedance:
 - » Speaker: 4Ω – 8Ω
 - » Line: 50Ω

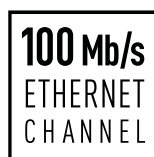
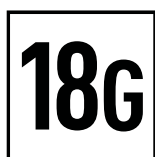
SYSTEM DESIGN EXAMPLES



Plenum Active Optical HDMI Fiber Cables

4K@60Hz/444/18G - Plenum, CMP/FT6 Rated

KD-AOCH33P	33 ft. / 10 m	
KD-AOCH49P	49 ft. / 15 m	
KD-AOCH66P	66 ft. / 20 m	
KD-AOCH98P	98 ft. / 30 m	
KD-AOCH131P	131 ft. / 40 m	
KD-AOCH164P	164 ft. / 50 m	
KD-AOCH230P	230 ft. / 70 m	
KD-AOCH262P	262 ft. / 80 m	
KD-AOCH328P	328 ft. / 100 m	



KEY FEATURES

- ▶ **CMP/FT6 UL Rating:** Fire retardant jacket is approved for installation in Plenum spaces
- ▶ **Active Optical Cable (AOC):** Technology carries heavy TMDS HDMI channel over fiber
- ▶ **4K/UHD Support:** 4096x2160 or 3840x2160 50/60Hz at 4:4:4
- ▶ **18 Gbps Bandwidth:** High Speed / Performance for latest HDMI standards
- ▶ **High Dynamic Range (HDR) Format Support:** HDR10 and Dolby® Vision
- ▶ **HDCP 2.2:** Compliancy up to HDCP 2.2 and backward compliant
- ▶ **Ethernet Channel:** 100 Mb/s Ethernet between two HDMI connecting devices
- ▶ **Audio Return Channel:** Audio can be returned from display back to HDMI source for amplification and display
- ▶ **Deep Color Support:** Up to 4K 24/25/30Hz 4:4:4/12 bits or 50/60Hz 4:2:0/12 bit
- ▶ **Directional Cable:** Each head contains specific handling for optimal performance
- ▶ **OPEN EYE™ Technology:** Certified & tested for 0% loss and noise-free performance
- ▶ **Support All Digital Audio Formats:** Dolby® TrueHD, Dolby® Digital Plus, Dolby® Atmos and DTS-HD Master Audio™
- ▶ **Thin & Flexible:** Wiring supports tighter bend radius than traditional HDMI
- ▶ **Powered by HDMI:** No external powering
- ▶ **Pull Strength:** Fiber Optic Cable = 33lb / 15kg. Connector = 53lb / 24kg
- ▶ **Cable Gage:** 28 AWG

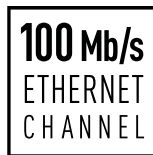
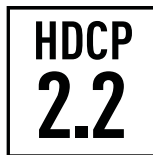
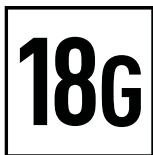
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4K/18G Commercial-Grade HDMI Cables – VW1 UL Rated

4K/18G HDMI Cables, HDR10, HDCP 2.2, Ethernet, ARC - VW1 UL Rated

KD-Pro3	3 ft. HDMI Cable	28 AWG	
KD-Pro6	6 ft. HDMI Cable	28 AWG	
KD-Pro9	9 ft. HDMI Cable	26 AWG	



KEY FEATURES


- > **4K/UHD Support:** 4096x2160 or 3840x2160 50/60Hz at 4:4:4
- > **18 Gbps Bandwidth:** High Speed / Performance for latest HDMI standards
- > **High Dynamic Range (HDR) Format Support:** HDR10 and Dolby® Vision
- > **HDCP 2.2:** Compliancy up to HDCP 2.2 and backward compliant
- > **Ethernet Channel:** 100 Mb/s Ethernet between two HDMI connecting devices
- > **Audio Return Channel:** Audio can be returned from display back to HDMI source for amplification and display
- > **Deep Color Support:** Up to UHD/4K 24/25/30Hz 4:4:4/12 bits or 50/60Hz 4:2:0/12 bit
- > **OPEN EYE™ Technology:** Certified & tested for low loss and noise-free performance
- > **Support All Digital Audio Formats:** Dolby® TrueHD, Dolby® Digital Plus, Dolby® Atmos and DTS-HD Master Audio™
- > **Deep Color Support:** 8K 4:4:4 16bit 60Hz, 4:2:0 16bit 120Hz; 4K 4:4:4 16bit 0/120Hz
- > **Digital Audio Format Support:** DTS-HD Master Audio™, DTS:X®, Dolby® TrueHD, Dolby Atmos®

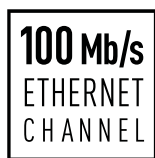
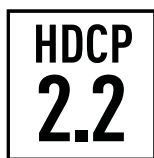
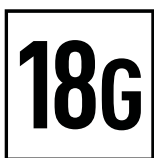
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4K/18G Commercial-Grade HDMI Cables – CL3/FT4 UL Rated

4K/18G HDMI Cables, support HDR10, HDCP 2.2, Ethernet - CL3/FT4 UL Rated

KD-Pro12	12 ft. HDMI Cable	26 AWG	
KD-Pro16	16 ft. HDMI Cable	26 AWG	
KD-Pro20	20 ft. HDMI Cable	24 AWG	
KD-Pro30GX	30 ft. HDMI Cable	24 AWG	
KD-Pro40GX	40 ft. HDMI Cable	24 AWG	
KD-Pro50GX	50 ft. HDMI Cable	24 AWG	



KEY FEATURES

- > **4K/UHD Support:** 4096x2160 or 3840x2160 50/60Hz at 4:4:4
- > **18 Gbps Bandwidth:** High Speed / Performance for latest HDMI standards
- > **High Dynamic Range (HDR) Format Support:** HDR10 and Dolby® Vision
- > **HDCP 2.2:** Compliancy up to HDCP 2.2 and backward compliant
- > **Ethernet Channel:** 100 Mb/s Ethernet between two HDMI connecting devices
- > **Audio Return Channel:** Audio can be returned from display back to HDMI source for amplification and display
- > **Deep Color Support:** Up to UHD/4K 24/25/30Hz 4:4:4/12 bits or 50/60Hz 4:2:0/12 bit
- > **OPEN EYE™ Technology:** Certified & tested for low loss and noise-free performance
- > **Support All Digital Audio Formats:** Dolby® TrueHD, Dolby® Digital Plus, Dolby® Atmos and DTS-HD Master Audio™
- > **Deep Color Support:** 8K 4:4:4 16bit 60Hz, 4:2:0 16bit 120Hz; 4K 4:4:4 16bit 0/120Hz
- > **Digital Audio Format Support:** DTS-HD Master Audio™, DTS:X®, Dolby® TrueHD, Dolby Atmos®

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8K/48G Ultra High Speed HDMI Cables – VW1 UL Rated

Dynamic HDR, Dolby® Vision, HDCP2.3, Enhanced Gaming Features. Optimized for PS5 and Xbox Series X.



KD-Pro8K3BX

3 ft./0.9m HDMI Cable

30 AWG

KD-Pro8K6BX

6 ft./1.8m HDMI Cable

30 AWG

KD-Pro8K10BX

10 ft./3m HDMI Cable

28 AWG

8K
@60Hz

48G

DOLBY
VISION
COMPATIBLE

DYNAMIC
HDR

HDCP
2.3

100 ^{Mb}/_s
ETHERNET

eARC
AUDIO
RETURN CH.

VW1
UL RATED

KEY FEATURES

- > **8K Ultra High Speed Certified:** 7680x4320 60Hz at 4:4:4
- > **48 Gbps Bandwidth:** Ultra High Speed / Performance for highest HDMI standards and 10K 4:2:2 24/30Hz support
- > **Dynamic HDR / Dolby Vision:** High Dynamic Range (HDR) format and dynamic delivery for brilliant images
- > **Enhanced Gaming and VR:** Auto Low Latency Mode, Quick Frame Transport, Quick Media Switching and Variable Refresh Rate
- > **HDCP 2.3:** Compliancy with media encryption up to HDCP 2.3 and backward compliant
- > **100 Mb/s Ethernet Channel:** High speed ethernet between two HDMI connecting devices
- > **eARC - Audio Return Channel:** Audio can be returned from display back to HDMI source for amplification
- > **Deep Color Support:** 8K 4:4:4 16bit 60Hz, 4:2:0 16bit 120Hz; 4K 4:4:4 16bit 60/120Hz
- > **Digital Audio Format Support:** DTS-HD Master Audio™, DTS:X®, Dolby® TrueHD, Dolby Atmos®



> Consumer Packaging

THE
GAMERS
CHOICE

OPTIMIZED FOR
PS5 &
Xbox Series X

HDMI
ULTRA
HIGH SPEED

DOLBY

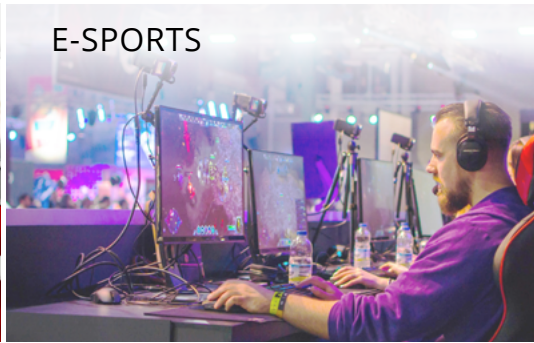
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Compass Control® Pro is a fully integrated iOS-based control system. Now with Pre-Built Templates and Compass Alliance™ Partners Bi-Directional Modules.

CORPORATE



E-SPORTS



DIGITAL SIGNAGE



EDUCATION



HEALTHCARE



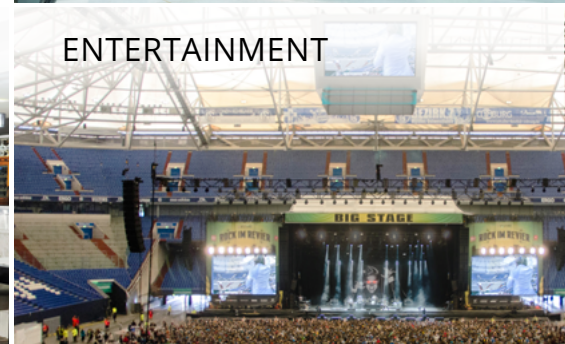
HOUSE OF WORSHIP



BAR & RESTAURANT



ENTERTAINMENT



KD-ProCL1

1 Unit

KD-ProCL4

4 Units

KD-ProCL6

6 Units

KD-ProCL8

8 Units

Enterprise Software License for Compass Control® Pro

KEY FEATURES

- > Required for activation of Compass Control® Pro System on iOS
- > Marries with Device ID of each iOS or Android device
- > Allows unique GUI creation for different devices across single project
- > Transferable between devices
- > Enables project upload and storage to/from Compass Control® cloud
- > Provides FREE access to Compass Navigator™ PC Editor for fast and easy system programming
- > FREE Technical Support for C1 Certified Installers / Programmers

Thank you for Purchasing Compass Control® Pro

Compass Control® Pro is a fully integrated control system designed to use iOS devices as its backbone.



- KD-ProCL1
- KD-ProCL4
- KD-ProCL6
- KD-ProCL8

It is required to access License Registration, using the following link:
[Compass Control® Pro Software, please go to: License_Register.asp](#)
 License Key in order to receive activate the software on a different device.

Enterprise Software License for Compass Control® Pro

Supports iOS

*Prior to purchasing Compass Control Pro products all resellers must complete C1 Compass Control Pro Certification Training. Key Digital highly recommends that all resellers use 3rd party Compass Control Pro Master Programmers to program the system.

Compass Control® Pro iOS App

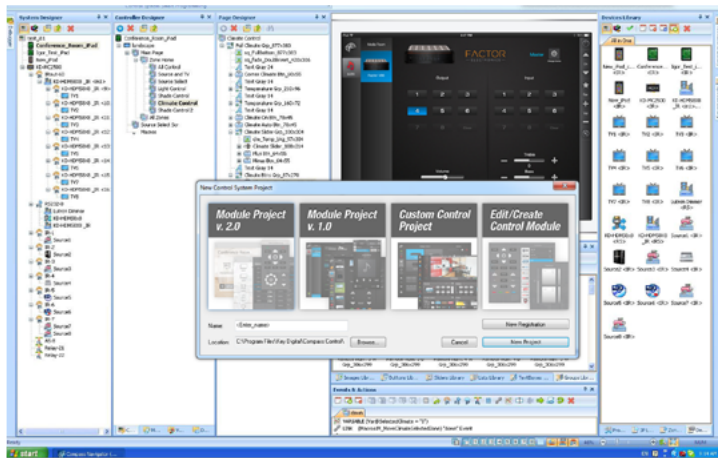
FREE Download on the App Store - **DOWNLOAD DEMO TODAY!**



- FREE Full Featured Demo for Customer Presentations - Great sales tool!
- Replaces all of remotes and traditional control interfaces with one device
- Multiple Demo options showcase full system capabilities
- Fully programmable with Compass Navigator™
- Customize and install full App on customer device
- Use KD-ProCL1/4/6/8 software licence to make each app a LIVE CONTROLLER

Compass Navigator™

PC Software for Compass Control® Pro System Programming



- **System Programming:** Allows fast and easy programming of the Compass Control® Pro system and connected devices
- **Flexibility:** Allows for both basic and complex level programming
- **Advanced Programming:** Create unique and powerful custom control interfaces through advanced programming
- **Ease of Setup:** Comes complete with additional IR/RS-232/TCP/IP modules
- **Simplicity of Integration:** Easily integrate any of our partner products into any Compass Control® Pro environment via Compass Navigator™

Compass Alliance™ Partners

Instantly integrate third party components from Compass Alliance™ Partners



Compass Control® Pro Partner Modules

Custom-built bi-directional drivers and GUI modules for Compass Alliance™ Partner products and software



- **Plug-N-Play:** Build a working integrated system with products from any of our partners.
- **Visit:** <https://keydigital.org/compass/modules> for latest modules

KD-MC1000

Master Controller (Wired/LAN, supports up to 8 Ports)



RELIABLE iOS INTEGRATION FEATURES

- ▶ **IP Connectivity Stabilizer:** Stable and constant TCP/IP socket created by KD-MC1000 with IP target devices via Telnet or HTTP regardless of iOS devices status.
- ▶ **Event Handler:** Scheduled events & actions based on iOS time and calendar variables including:
 - ▶ Schedule Mode: Schedule and execute timer events from iOS device and/or KD-MC1000
 - ▶ Schedule Sensing Mode: Execute events triggered by voltage or video/audio sensing by KD-MC1000

SPECIFICATIONS

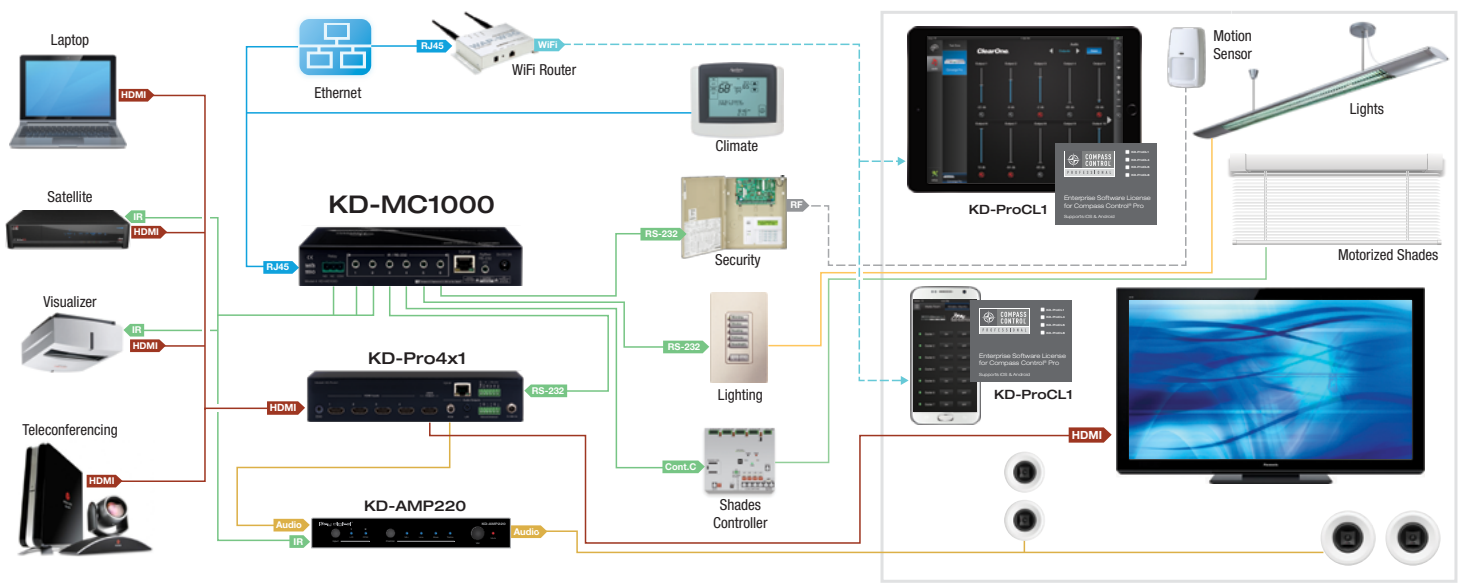
- ▶ MCP35™ Multi-Function I/O (6): 3.5mm Female stereo connectors independently configured as IR (mono, Tx or Rx, fixed to +5V), RS-232 (stereo, Tx and Rx, fixed to +5V), Voltage Trigger (fixed to +5V), Voltage Sensor (Digital Audio or Video, from +0.1V to +3.3V)
- ▶ Relay (1): Independently configurable to NO (active), or NC (inactive) with 12A / 250VAC resistive switching capacity
- ▶ TCP/IP (1): Supports 10/100BaseT up to 100Mbps for communication with iOS devices via LAN, software updates, device configuration and setup
- ▶ Accessories: USB Cable, (1) 3-Pin Terminal Block for Relay, (6) 3.5mm to IR Emitter, (3) 3.5mm to RS-232 Data Cable, Rack Mount Ears
- ▶ Power Supply: KD-PS5V2A, 5V/2A, 100-240VAC, 50-60Hz, Interchangeable head
- ▶ Product: 6.5" x 4" x 1.13", 1.5 lbs.
- ▶ Packaging: 8.8" x 6.2" x 3.9", Weight: 3 lbs.
- ▶ Regulation: CE, RoHS, WEEE, EAC
- ▶ Enclosure: Black Metal 1/2U

KEY FEATURES

- ▶ **iOS Backbone:** First major control system built from the ground up using Apple's iOS devices – iPad®, iPad® mini, iPhone®, and iPod touch®
- ▶ **Total 8 Ports:** 6 MCP35™ multi-function I/O Ports, 1 Relay/Contact Closure Port, 1 ZigBee® Wireless Port
 - ▶ Multi-function 3.5mm Ports can be programmed to be one of the following functionality: IR in any direction, bi-directional RS-232, Voltage Level output, Voltage Sensor input, PCM Audio sensor input or Composite Video Sensor input
- ▶ **USB Support:** USB port for firmware upgrades and initial setup
- ▶ **Built-in IR Learning:** Front-facing IR window enables learning of IR codes from external IR remotes
- ▶ **LAN:** Direct wire to LAN via RJ45
- ▶ **Relay Control:** Control external equipment with one set of switchable contacts. Any multi-function 3.5mm port can be converted to Contact Closure using external Key Digital® KD-CCXR200 Converter
- ▶ **Real Time Master Control:** Allows user to store variables and events internally with/ without iOS device
- ▶ **Compass Navigator™:** PC Editor allows fast and easy programming
- ▶ **Device Configuration:** Allows all functions and integration into Compass Project via IP and Compass Navigator™ software
- ▶ **Complete Control:** Audio, video, HVAC, lighting, shades, security, and more
- ▶ **Control Distribution:** Integrates with all Key Digital Control Routing HDMI Switchers to expand the control system and add control ports
- ▶ **No need for PC or Mac in the system:** All system performance is controlled by KD-MC1000 Master Controller and any iOS device
- ▶ **Compass Alliance™ Partners:** Instantly integrate third party components from Compass Alliance™ Partners pre-loaded code sets - [Full Partner Listing](#)



SYSTEM EXAMPLE



KD-CX800

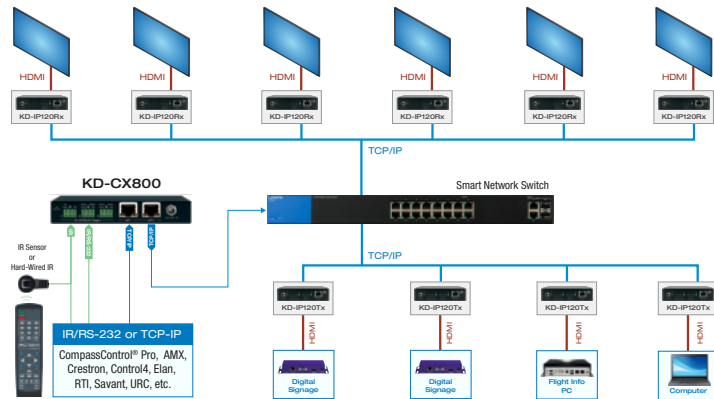
Control Interface with IR and RS-232 Over IP Routing

KEY FEATURES

KD-CX800 is very flexible, with four supported modes of use:

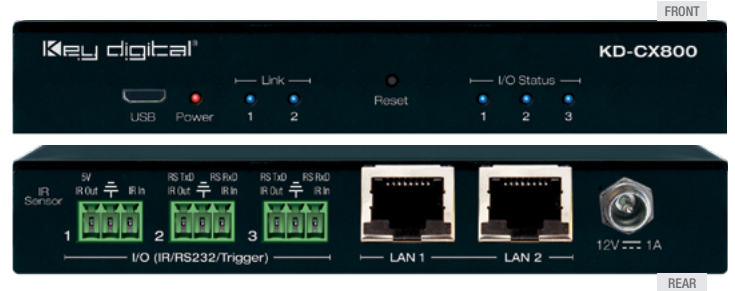
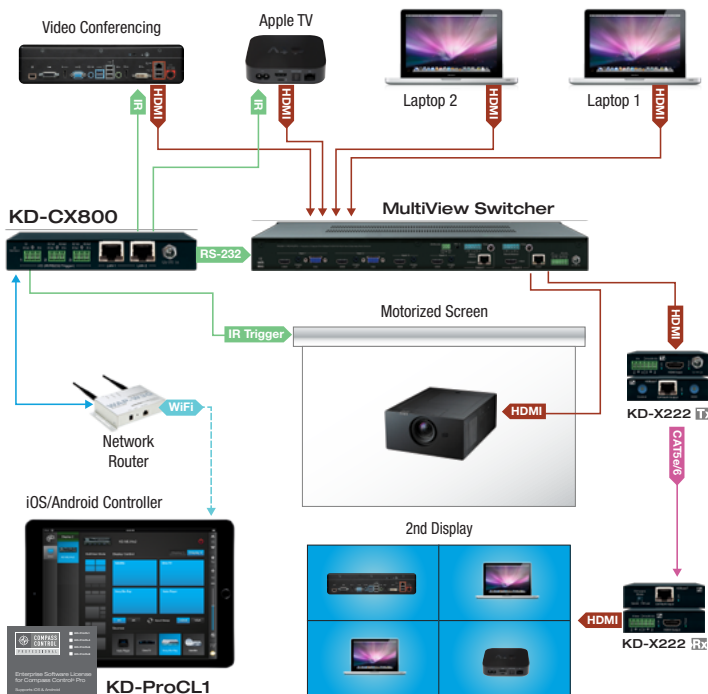
> Mode 1: Control gateway for AV Over IP system

- » Enables more third-party control options than other HD Over IP systems
- » Accepts commands from third-party control systems or Compass Control®
- » Supports generic RS-232, TCP/IP, and IR Key Digital matrix switching command strings



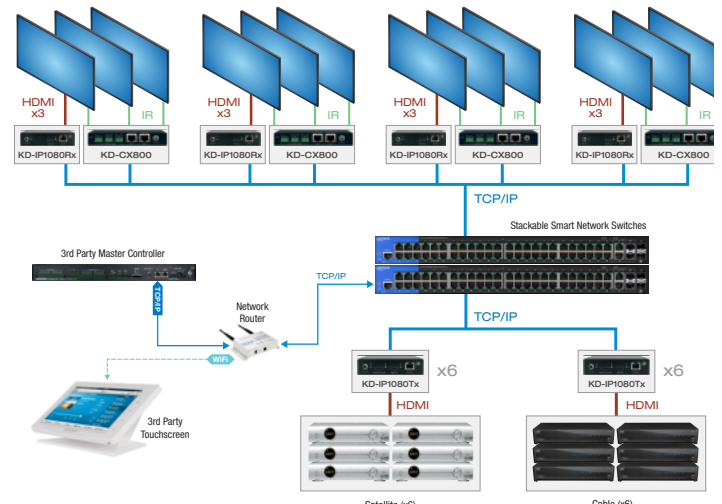
> Mode 2: Compass Control® Pro Master Controller

- » Supports communication to/from licensed iOS and Android devices
- » Flexible port configuration (IR, RS-232, trigger, sensor) set in Compass Navigator™ program
- » IR learner/sensor built-in
- » Supports up to two real-time bi-directional RS-232 ports
- » TCP/IP device control direct from iOS/Android controller – no ports used



> Mode 3: Third-Party Control via KeyCode Open API

- » Cost-effective control expansion with advanced third-party control systems
- » Adds reliable hardware interface to network-based control apps
- » Enables IR, RS-232, and voltage device control
- » Robust API allows for bi-directional communication



> Mode 4: Control Extension via IP

- » Carry any supported combination of IR, RS-232, and voltage triggers over the network
- » Extends control signals up to 400 ft. / 121 m. Greater distances possible with adapters.
- » Supports systems with or without network switches



SPECIFICATIONS

- » Power Supply: KD-PS12V1ASC, 12V/1A, 100-240VAC, 50-60Hz, Interchangeable head, screw-in connector
- » Regulation: CE, RoHS, WEEE, EAC
- » Enclosure: Black Metal
- » Product Dimensions: 5.06" x 3.08" x 0.78"
- » Packaging Dimensions: 5.78" x 4.01" x 3.46"
- » Product Weight: 0.5 lb
- » Shipping Weight: 1.5 lb

KD-CCXR200

Converts MCP35™ Multi-function I/O Port to Contact Closure/Relay



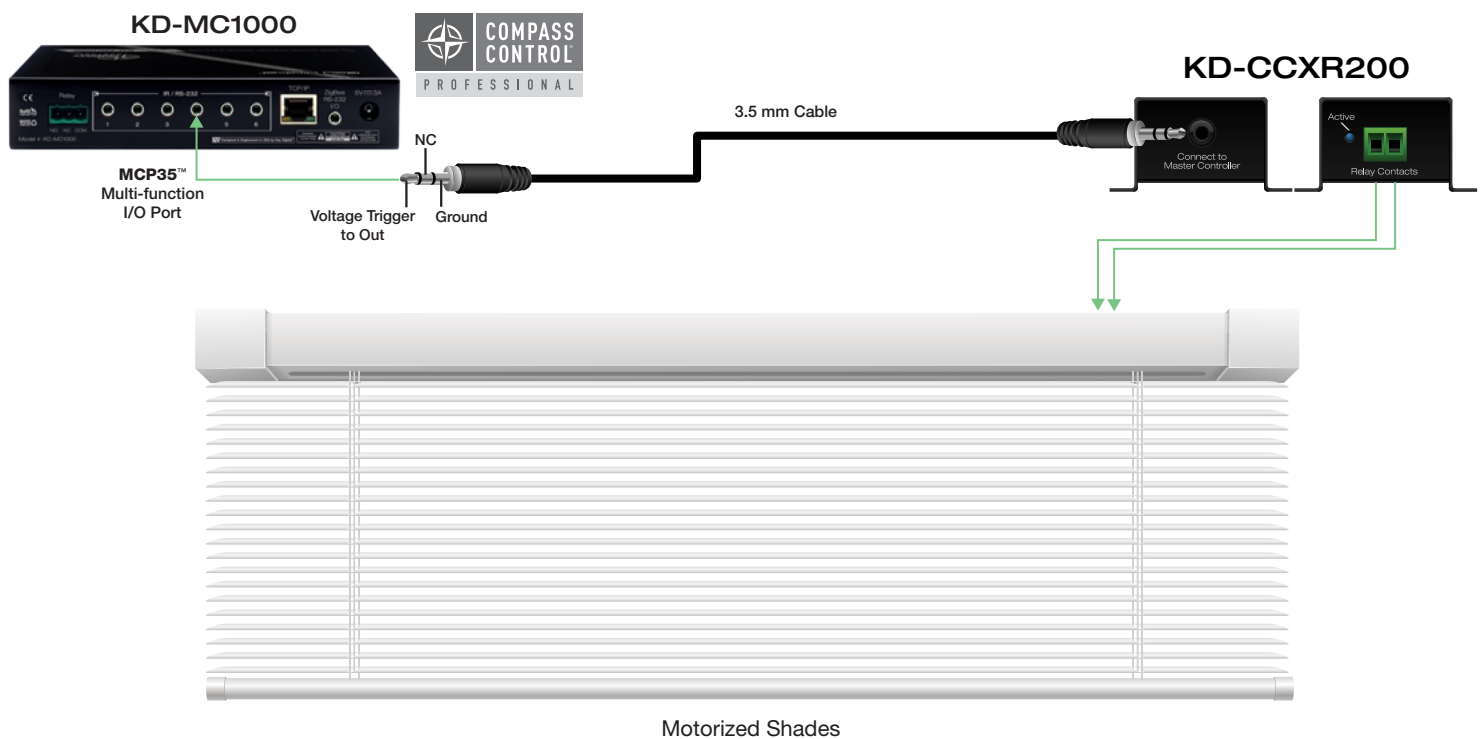
FEATURES

- > **Compatible with:** KD-MC1000 Master Controller and HDBaseT/HDMI Matrix Switchers with built-in Compass Control® Pro
- > **Multifunction 3.5mm based Compass Control® Port – MCP35™:** supports following seven features:
 - » 1. IR output
 - » 2. IR Input
 - » 3. RS232 bi-directional
 - » 4. Voltage sensor
 - » 5. Voltage trigger
 - » 6. PCM audio sensor
 - » 7. Composite Video sensor
- > **Converts:** Any I/O Multifunction Compass® Control Port (MCP35™) to Contact Closure/Relay when set to Output Voltage Trigger Mode
- > **Contact Functionality:** Contact Normally Open, if 5V applied – Contact Closed.
- > **3.5mm mono input connection:** Use a male-to-male 3.5mm mono cable from KD-MC1000 Master Controller or HDBaseT/HDMI Matrix Switchers with built-in Compass Control® Pro
- > **One Contact Closure/Relay Output**



- > **Contact Closure Maximum Rating:** 250VAC/5A, 30VDC/5A
- > **Maximum Distances:**
 - » 3.5mm mono cable: 10 feet
 - » Contact Closure/Relay Output with one twisted pair of CAT5e/6 cable: 100 feet
- > **No external power required**

SYSTEM EXAMPLE



Motorized Shades

KD-App - Key Digital® iOS App

Access and Control Key Digital® App Ready products via TCP/IP directly with Key Digital® iOS App. FREE Download from the App Store.

FEATURES

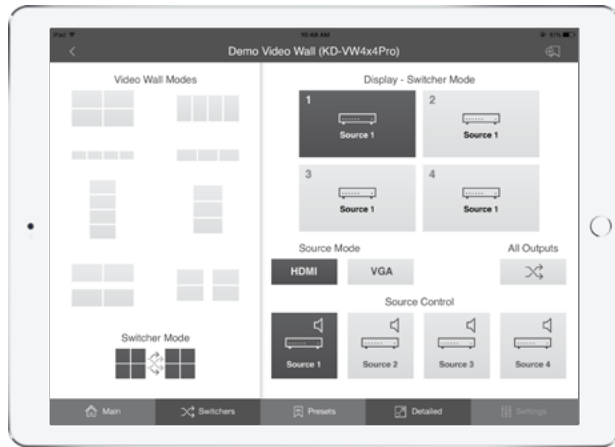
- > **iOS App with Demo Mode:** Download Key Digital® App Demo from the App Store - Demo system can be used as a customer test drive and sales tool
- > **IP Control:** All Key Digital® App Ready IP-enabled products are automatically detected on local area network and are ready for control
- > **Key Digital AV over IP Access:** Easily Access and Control Key Digital® AV Over IP Network Switching & Control Solutions and IP-Enabled Video walls
- > **Pre-built GUI Access:** Network scan & detect populates pre-built GUI including connected display/projector controls
- > **Switcher Control:** Enables users to choose desired video sources and assign them on selected displays
- > **MultiView and Video Wall Controls:** Assign sources, modify displays, control bezels and screen modes in our Digital Signage products: KD-MLV4x2Pro and KD-VW4x4Pro
- > **Custom Presets:** Create presets that help reduce time spent configuring your A/V system
- > **Scan & Connect:** Key Digital® App will scan your network for Key Digital® App Ready products and will connect to them automatically.



AV over IP Switcher

> Available for iPad and iPhone: [Download Demo App](#)

Video Wall Switcher



Presentation Solutions - Display, Audio and CAM Control



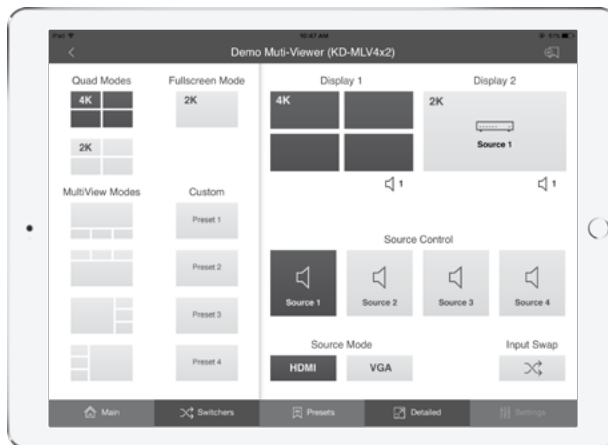
iPhone UI



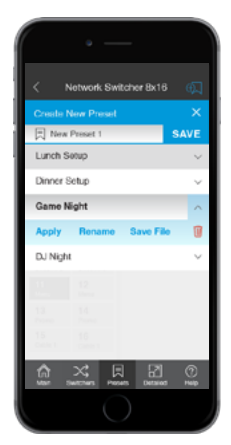
AV over IP Enabled Customizable Video Walls



Presentation Multi-View Switcher



Presets



Key Digital® Management Software™ Pro (KDMS™ Pro)



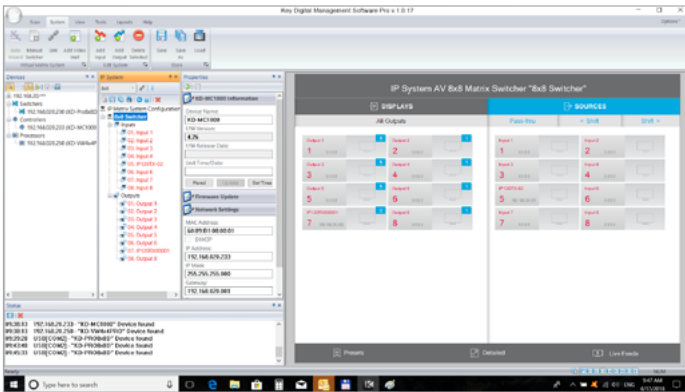
Key Digital unit/system configuration and control PC software - For Professional A/V Integrators

FEATURES

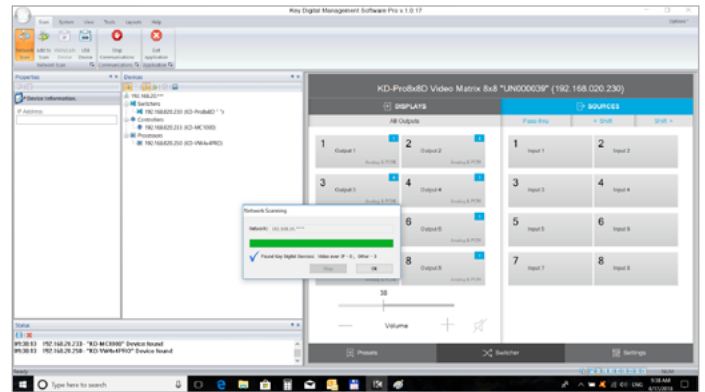
- PC software
- Professional A/V Integration tool
- Scans and detects via network, USB, and RS-232
- Supports multiple Key Digital units / systems on same network
- **Configure compatible Key Digital units and systems:**
 - » Input / output naming
 - » Network settings
 - » Firmware updates

- Provides pre-built control GUI for compatible Key Digital systems
- AV over IP solutions unit and virtual matrix configuration
- **Manage video and audio routing, volume levels, video walls and more:**
 - » AV over IP Systems
 - » Presentation Solutions
 - » HDMI and HDBaseT matrix switchers
 - » Audio matrix switchers
 - » Presentation switchers
 - » Video wall processors
 - » Multi-viewers

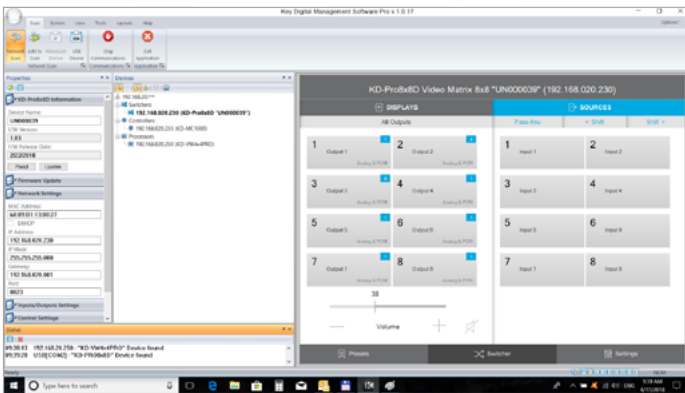
AV over IP Matrix Switching



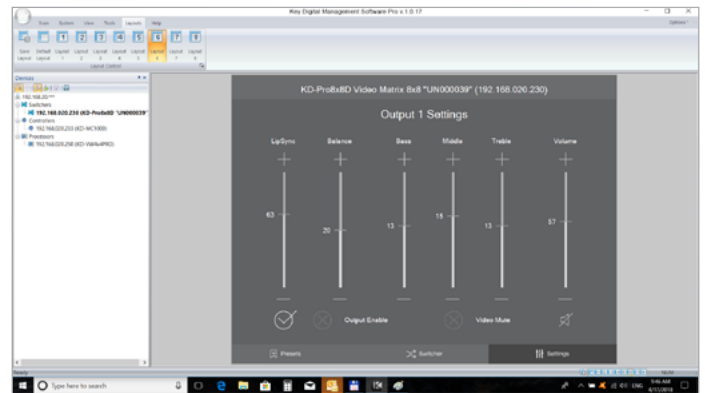
Network Scanning



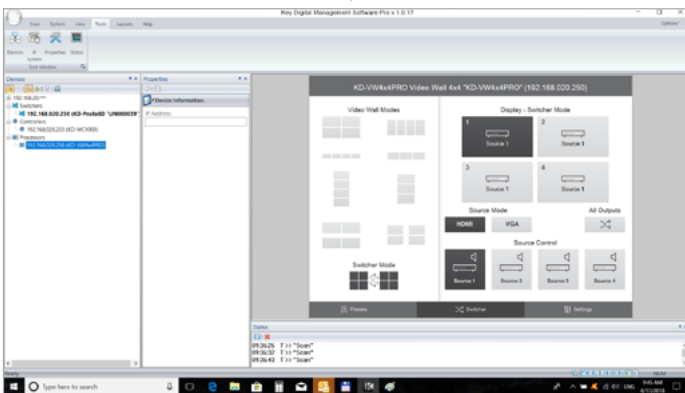
HDBT Matrix Switcher



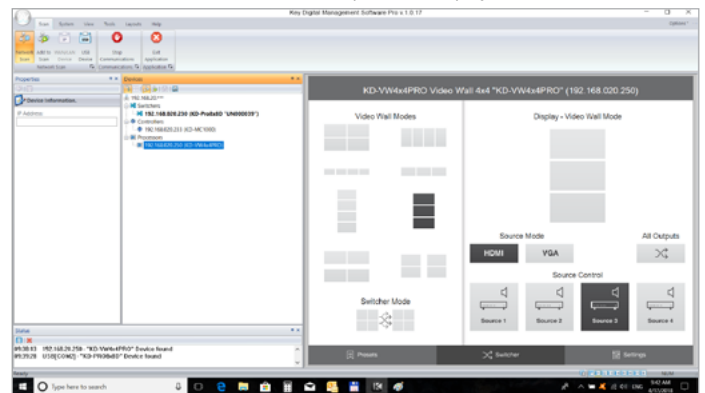
Matrix Audio Setup

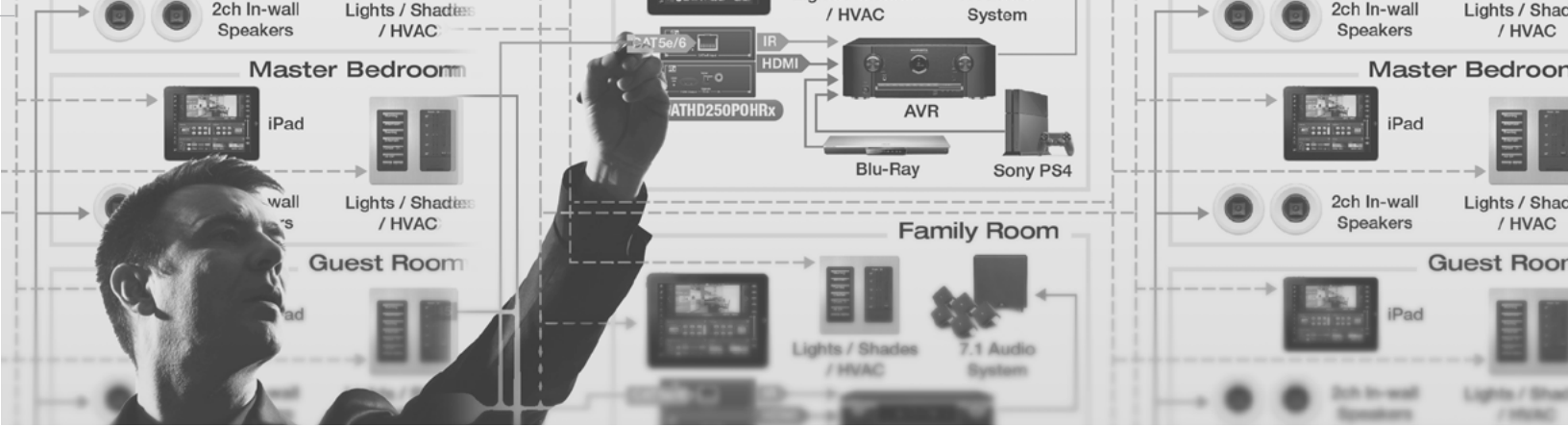


Video Wall Setup - Quad Mode



Video Wall Setup - Multi-Display





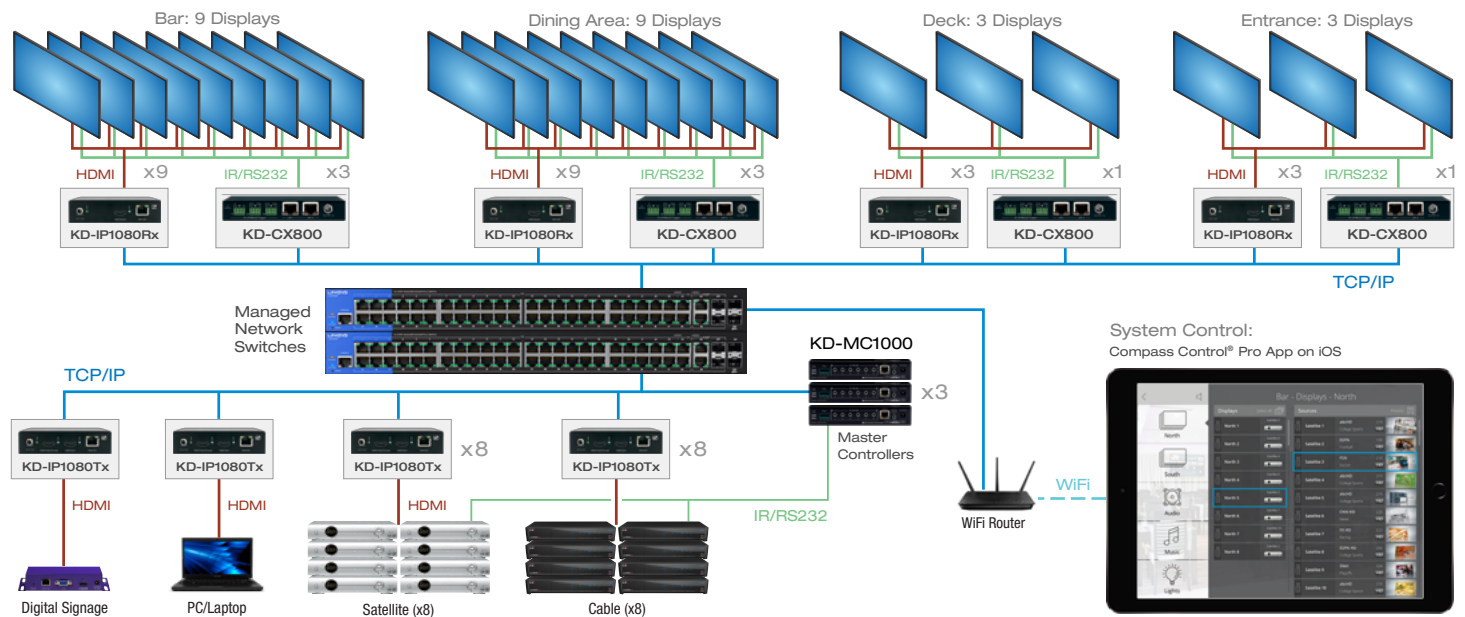
Key Digital® System Design Group - FREE* Expert System Design Services at Your Fingertips.

Designing a high quality, fully integrated video/audio processing, switching, distribution & control system can be a difficult and time-consuming task even for the experienced installer. We value our customers and offer system design services FREE* to our dealers and resellers.

Our professional System Design Group (SDG) has over 50 years of combined experience with virtually all types of video systems. The SDG department can provide the expertise to both choose the components and design a system that will provide the utmost in quality and functionality. Whether you need to modify a video system that is currently in place, or design a totally new system, we will work through your project and provide information, product choices, block

TO GET STARTED WITH A SYSTEM DESIGN REQUEST:

> Complete the System Design Questionnaire and email to SDG Group: SDG@keydigital.com



*Key Digital System Design Services are ONLY FREE to Authorized Key Digital Dealers, Resellers and Distributors purchasing system-specified products. Key Digital has zero-tolerance policy concerning dealers & distributors who are engaged in "bait & switch" tactics via requesting FREE system design services and then substituting with non- Key Digital products. This scenario violates Key Digital policy and agreements, and such dealers will be invoiced \$1,500 for SDG service which must be paid immediately.



Key Digital® University - Translating customer education into customer success.

At Key Digital we have developed the most progressive and comprehensive training program for our dealers, offering access to designing, building, installing high-end commercial and residential installations, while being immersed in the features and benefits of all Key Digital products.

In-House Trainings are exclusive 2-3 day sessions aimed at advancing our dealers quickly through training and certifications. These trainings provide basic, intermediate, and advanced courses complete with certification exams in the span of a few days. Compass Control® trainings allow our dealers to become Compass Control® Certified Dealers and Programmers, giving them access to one of the most advanced control systems on the market.

Online Trainings & Certifications are FREE to our dealers and resellers and offer convenience and 24/7 access to a variety of training materials and certifications aimed at improving technical product knowledge, and educating about custom system design and programming.



Industry Certifications – All of our trainings and certification offer industry-standard certification units through InfoComm International RU Renewal Units, certified AVIXA CTS/CTS-D RU units, and CEDIA CEU certification.



“All Key Digital products are designed and rigorously tested at our HQ in Mount Vernon, NY. Our trainers, tech support and engineers are working together on product definition and testing. That creates a direct line between our customers and actual technology used inside our products. That is why we can always give most in-depth information about our products and state of the art in technology during our trainings.” – Mike Tsinberg, CEO and Founder

On The Road Trainings are organized and held in conjunction with our resellers and distributors and held at their locations. Our training experts host these sessions and are focused on distributor specific products lines and offerings.

Key Digital LIVE!! Series provide personalized access to our experts with introductions to new products, in-depth discussion of technologies, category overviews, and designing the sort of full-scale systems that have made Key Digital's System Design Group (SDG™) very popular amongst industry insiders.

YouTube Video Trainings offer unlimited access to a ever-expanding library of FREE training resources available through mobile and desktop platforms. Visit and subscribe to Key Digital YouTube Channel for products training videos, software overviews, demos, and reviews.

Innovation Timeline

Mike Tsinberg, Founder and President of Key Digital, holder of 41 HDTV patents, SMPTE Fellow



- > “Father of DVD” - Developed architecture and system software for worlds first Digital Video Disk (DVD) MPEG2 based authoring system - Key DVD Technology. Participated with Emmy Award Winner for DVD Technology.
- > 2009 Inductee as one of the Top 200 Pioneers of HDTV by the Academy of DTV Pioneers (CEA)
- > 2013 Adele De Berri Pioneers Award Receptient at InfoComm 2013

2019

- > Key Digital Presentation Solutions Launched

2018

- > Key Digital® Management Software Launched on PC
- > Key Digital® iOS App Launched

2017

- > Compass Control® Pro Launched

2016

- > AV over IP Video Wall Solutions released

2015

- > Patent: [System and method for transmitting control signals over HDMI](#)

2013

- > Received 2013 Adele De Berri Pioneers Award at InfoComm 2013

2012

- > Release of Compass Control® the first fully integrated major control system built from the ground up to use Apple's iOS 5 devices – as its backbone.

2010

- > Plug and Play vs. Plug and Pray – HDMI Buffering Method introduced

2009

- > Key Digital® 1 Key Technology Introduced: HDCP authentication technology
- > Noise-free OPEN EYE™ Technology implemented on all Key Digital® HDMI Products

2008

- > Introduction of first HDMI Distribution Amplifier with EDID Control, HDMI2x4P
- > Release of first Matrix Switcher with Video/Audio/Control via Single CAT5/6

2006

- > Introduction of first HDMI Switcher, and First HDTV Matrix Switcher

2002

- > Release of KD-HDLEEZA, First 1080p Scaler

2001

- > Patent: [Multi-channel electronic programming guide and soft picture-in-picture acquisition for use with digital television](#)

2000

- > Patent: [Method and system for interpolating a missing pixel using a motion vector](#)

1999

- > Key Digital founded by Mike Tsinberg, first product release, KD-DA12 for Best Buy
- > Received Emmy Award for DVD Technology Development as a member of Toshiba team

1998

- > Patent: [Audiovisual encoding system with a reduced number of audio encoders](#)
- > Patent: [Method and system for a user to manually alter the quality of previously encoded video frames](#)
- > Patent: [High definition video decoding using multiple partition decoders](#)
- > Patent: [High data rate system and method for video recording and playback](#)

1997

- > Chair, National Academy Of Television Arts & Sciences (NATAS) sub-committees on motion estimation technology and Digital TV bit stream analyzers 1997-2000
- > Patent: [System for deinterlacing digitally compressed video and method](#)
- > Patent: [Method and system for a user to manually alter the quality of a previously encoded video sequence](#)
- > Patent: [Digital video recording and playback system and method having multiple playback devices outputting video program data on multiple channels](#)

1996

- > Member of SMPTE (Society of Motion Picture & Television Engineers)
- > Patent: [Video compression system with editing flag](#)
- > Patent: [Apparatus for processing band-compressed signals having inter-frame and intra-frame signals](#)

1994

- > Developed world's first Digital Video Disc (DVD), key DVD enabling technology
- > Patent: [Method and apparatus for the transmission and reception of a multicarrier digital television signal](#)

1993

- > Patent: [Method and apparatus for digitally processing a high definition television augmentation signal](#)

1992

- > Patent: [Method and apparatus for the transmission and reception of a multicarrier digital television signal](#)
- > Patent: [Method and apparatus from transmitting augmentation panel components on one channel of a two channel wide aspect ratio television signal transmission](#)
- > Patent: [Decomposition and recombination of a wide-aspect ratio image](#)
- > Patent: [Two-line MAC high definition television system](#)
- > Patent: [System for providing a high definition television \(HDTV\) augmentation channel comprising time and frequency multiplexed components](#)

1991

- > Developed world's first Digital Consumer HDTV VCR (DVCR)
- > Senior Manager, Toshiba America Consumer Products, Advanced TV Technology Center
- > Patent: [Method and apparatus for demodulating chrominance signals using a training signal in place of a color burst signal](#)
- > Patent: [Method and apparatus for the transmission and reception multicarrier high definition television signal](#)
- > Patent: [High definition multiple analog component amplitude modulated television transmission system](#)
- > Patent: [High definition NTSC compatible television system with increased horizontal bandwidth and reduced color artifacts](#)
- > Patent: [HDNTSC transmission and reception with time and frequency multiplexing](#)

1990

- > Patent: [Adaptive comb filter for artifact-free decoding](#)
- > Patent: [HDNTSC channel with frequency multiplexing](#)
- > Patent: [Apparatus for encoding television signals of different formats for transmission and decoding upon reception](#)
- > Patent: [Training signal for maintaining the correct phase and gain relationship between signals in a two-signal high definition television system](#)
- > Patent: [HDNTSC channel with time and frequency multiplexing](#)
- > Patent: [Method and apparatus for introducing a pan and scan feature to high definition television systems](#)
- > Patent: [Two-line mac high definition television system](#)
- > Patent: [Method and apparatus for recombining a main panel component with a augmentation panel component to create a wide aspect ratio television display](#)

1989

- > Patent: [High definition television augmentation channel](#)
- > Patent: [Extended horizontal resolution of luminance and chrominance in a high definition television system](#)
- > Patent: [Adaptive comb filter for artifact-free decoding](#)
- > Patent: [Scan rate conversion apparatus and method](#)

1988

- > Patent: [High-definition television transmission system](#)
- > Patent: [Method and apparatus for transmitting and receiving a high definition NTSC compatible television signal over a single DBS channel](#)

1987

- > Developed first high-defintion television transmission system
- > Patent: [High-definition television transmission system](#)

Sales Contacts

U.S. Inquiries

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Vice President of Sales

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- > **Email:** dewayne@keydigital.com

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VP of Global Sales Distribution

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- > **Mobile:** 914.708.0814
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Leon Tsinberg

Business Development Manager

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- > **Mobile:** 646.228.0976
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- > **Email:** sales@keydigitaleurope.eu

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- > **Email:** Abhinav.Saxena@keydigital.com

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Nairobi, Kenya

- > **Phone:** +254 20 3316691
- > **Email:** salesafrica@keydigital.com



To become an Authorized Key Digital® Reseller:

Please contact Key Digital Sales Department for a Reseller Package:

- > **Phone:** **914-667-9700 ext 2**
- > **Email:** sales@keydigital.com

General Contacts

System Design Group (SDG)

For system design questions please contact us at:

- > **Phone:** 914-667-9700 ext. 3
- > **E-mail:** sdg@keydigital.com

Key Digital Trainings

For questions about Key Digital Trainings please contact us at:

- > **Phone:** 914-667-9700 ext. 6
- > **E-mail:** training@keydigital.com

Customer Support

For customer support questions please contact us at:

- > **Phone:** 914-667-9700 ext. 7
- > **E-mail:** customersupport@keydigital.com

Technical Support

For technical questions about using Key Digital® products, please contact us at:

- > **Phone:** 914-667-9700 ext. 3
- > **E-mail:** tech@keydigital.com

Marketing and Public Relations:

For marketing and public relations information, please contact us at:

- > **Phone:** 914-667-9700 ext. 6
- > **E-mail:** marketing@keydigital.com

Shipping

For shipping questions please contact us at:

- > **Phone:** 914-667-9700 ext. 7
- > **E-mail:** shipping@keydigital.com

Accounting:

For accounting questions please contact us at:

- > **Phone:** 914-667-9700 ext. 5
- > **E-mail:** accounting@keydigital.com

Repairs and Warranty Service

Should your product require warranty service or repair, please obtain a Key Digital® Return Material Authorization (RMA) number by contacting us at:

- > **Phone:** 914-667-9700 ext. 4
- > **E-mail:** rma@keydigital.com

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