

# For Immediate Release

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## **Key Digital Repairs Connectivity between standard HDMI Products**

**Mount Vernon, NY. Key Digital Systems, Inc.** the Experts in Digital Video Technology and Solutions.

As HDMI becomes more and more common in new installations, you may experience an entirely new set of problems that may not be readily understood. As is often the case, you may have to integrate both new and old HDMI equipment. As the specifications for HDMI change, sometimes this different equipment won't get along as well as desired. In these cases Key Digital has features which can help you correct these problems to allow a fully functioning system, no matter the configuration.

Features like HDCP key buffering, EDID buffering and TMDS re-clocking have become standard on all Key Digital Switchers, Matrix switchers and Distribution Amplifiers. Our experiences with consumer HDMI products in the field show that these features actually repair some of the most common HDMI connectivity issues.

Here is a list of HDMI problems you may come across which can be corrected utilizing Key Digital's advanced features:

1. The EDID (Extended Display Identification Data) file in the display is not written correctly. This file may not be complete. Some sources have the ability to fill in missing data while others will refuse video to such a display. EDID buffering and control allows you to repair that problem.
2. The EDID file is written correctly, but is not delivered well through an HDMI cable or CAT5 extender/Balun perfectly. The sources' reaction will be the same. Again EDID buffering and control can fix this.
3. The EDID file is written correctly and delivered correctly but the sources' software is not trained sufficiently on some extensions of EDID format. EDID buffering and control can fix this.

4. A Source has only one HDCP key while most systems require more than one HDCP enabled display to work. In this case, HDCP buffering uses new keys to enable each display separately.
5. A Source has enough keys but source computing horsepower is limited and does not allow multithreaded HDCP operations to run in real time for all HDCP displays. In this case, HDCP buffering also uses new keys to enable each display separately.
6. The TMDS (Transition Minimized Differential Signaling) “eye” can close due to data jitter introduced by an HDMI cable or CAT5 extender/ Balun. As a result, data errors can increase and start to affect image quality. Using TMDS “re-clocking”, we can clean up the jitter from TMDS, allowing error free connection and “daisy chain” configurations.

## **KD-HDMS8x8**

Key Digital Hercules Series™ KD-HDMS8x8 is a HDMI Matrix Switcher capable of switching up to 8 HDMI/DVI Video Sources/Inputs to 8 independent Zones/Outputs via HDMI and CAT5. It also features card slot architecture providing flexible Input/Output configurations.



### **Key Features:**

- Full switching of 3 independent matrixes: Video, Audio and Control
- Supports all SD, HD, and VESA (VGA, SVGA, XGA, WXGA, SXGA, UXGA) resolutions up to 1080p (60Hz & 50Hz)
  - SD & HD: 480i, 480p, 720p, 1080i, 1080p
  - VESA / VGA (RGBHV): From 640x480p up to 1920x1200p
- Full support for HDCP, HDMI 1.3a/b and 3D
- Supports lossless compressed digital audio (Dolby TrueHD, Dolby Digital Plus and DTS-HD Master Audio)
- Internal EDID Library features 8 default EDID configurations, in addition to Native EDID data for any Output/Display

### **Key Benefits:**

- Transmits 1080p/60Hz resolution up to 140 ft, 1080p/24, 1080i, 720p and 480i/p resolutions up to 270 ft, when used with KD-BBRX receiver Baluns
- Video, Audio, IR and RS-232 distribution via a single CAT5 cable
- Fully automatic CAT5 cable equalization
- 16 active outputs (8 HDMI/DVI and 8 CAT5) enables flexible integration
- Full Audio control per output for volume, treble, bass, balance, and lip-sync from analog or digital sources
- Serial IR, Optical IR, Front Panel Control, Discrete Remote Codes, RS- 232 and TCP/IP. Supports major control systems such as AMX®, Control4®, Crestron®, RTI®, Savant, Universal®, Xantech® and others

## KD-HDSW2x1, 3x1 & 4x1

Phantom Series HDMI switch offering 2, 3, or 4 inputs to 1 output. Advanced EDID management settings control HDCP for faster switching and 3D. Control via IR and RS232.



### Key Features:

- Digital switching of 2 HDMI inputs to 1 HDMI output
- Supports all SD, HD, and VESA (VGA, SVGA, XGA, WXGA, SXGA, UXGA) resolutions up to 1080p (60Hz & 50Hz):
  - **SD & HD:** 480i, 480p, 720p, 1080i, 1080p
  - **VESA / RGBHV:** From 640x480p up to 1920x1200p
- EDID Control featuring internal library of 4 Default HDMI Handshakes
- Automatic sensing of signal presence and switching to active input

### Key Benefits:

- Addressable units to support up to 100 units per system
- Default EDID for 1080i or 1080P systems (EDID Control™)
- Full support for HDMI® with HDCP, Deep Color (12 bits/color) Video
- Supports lossless compressed digital audio
  - Dolby® TrueHD, Dolby® Digital Plus and DTS™-HD Master Audio
- Pushbutton, IR Sensor, Serial IR, and RS-232 control.
- Supports major control systems such as AMX®, Colorado vNet®, Control4®, Crestron®, HomeLogic™, lifelware™, RTI®, Savant, Universal®, Xantech®

## KD-HDDA 1x2, 1x3, 1x4 & 1x8

Phantom Series HDMI distribution amplifier offering 2, 3, 4 or 8 outputs from 1 input allows multiple displays from a single source component. Advanced EDID management settings control HDCP and 3D.



### Key Features:

- Distributes 1 HDMI / DVI source to 2 HDMI/DVI outputs
- Supports all SD, HD, and VESA (VGA, SVGA, XGA, WXGA, SXGA, UXGA) resolutions up to 1080p (60Hz & 50Hz):
  - **SD & HD:** 480i, 480p, 720p, 1080i, 1080p
  - **VESA / RGBHV:** From 640x480p up to 1920x1200p
- EDID Control featuring internal library of 4 Default HDMI Handshakes
- Automatic sensing of signal presence and switching to active input

### Key Benefits:

- Can be cascaded to support up to 64 outputs or displays
- Default EDID for 1080i or 1080P systems (EDID Control™)
- Full support for HDMI® with HDCP, Deep Color (12 bits/color) Video
- Supports lossless compressed digital audio (Dolby® TrueHD, Dolby® Digital Plus and DTS™-HD Master Audio)

## **KD-CATHD**

HDMI/DVI to dual CAT5/5e/6 Cable Extender (Includes RX&TX)



### **Key Features**

- **3D** – Capability to pass 3D stereoscopic signal formats
- **4K** – 4096x2160/24 resolution support for commercial applications such as Digital Movie Theaters, CAD, Post Production, Graphics and etc.

### **Key Benefits**

- Supports all SD, HD, and VESA (VGA, SVGA, XGA, WXGA, SXGA, UXGA) resolutions up to 1080p
  - SD & HD: 480i, 480p, 720p, 1080i, 1080p
  - VESA / DVI: From 640x480p up to 1920x1200p
- Full support for HDMI® 1.4 with HDCP, Deep Color (12 bits/color) Video
- Allows extension of HDMI signals distances that standard HDMI cables cannot achieve
- Enables the use of less expensive CAT5/5e/6 UTP cabling for HDMI/DVI signal extension
- Supports lossless compressed digital audio: Dolby® TrueHD, Dolby® Digital Plus and DTS™-HD Master Audio

## ***Industry Leadership***



**Mike Tsinberg, Founder and President of Key Digital, is a holder of 40 HDTV patents.**

- SMPTE fellow
- Participated with Emmy Award Winner for DVD technology development
- “Father of DVD” - Developed architecture and system software for world first Digital Video Disk (DVD) MPEG2 based authoring system - key DVD enabling technology

**Key Digital® Systems** is a CES award-winning developer and manufacturer of leading-edge technology for HDTV applications, delivering total video systems solutions. The company

manufactures a wide range of digital video processing and video signal distribution solutions marketed broadly to the HDTV community, such as digital video and audio processors, switchers, distribution amplifiers, cables, adapters, and more. For more information, visit us at [www.keydigital.com](http://www.keydigital.com) .