Key Digital Webinar Series
Introduction to Phantom Series HDMI DA’s
Phantom Series HDMI Switchers

Webinar Agenda:
» About Key Digital
» Introduction to Phantom Series
» Product Training
» Product Sales
» Phantom Series HDMI Distribution Amplifier Line Recap
» Key Digital System Design Group (SDG™)
About Key Digital

- Founded in 1999 by President and Head Engineer, Mike Tsinberg, holder of 40 HDTV patents
- CES award-winning developer and manufacturer of technologies for HDTV applications
- Best in class brand for product quality, reliability, performance, and innovation
- Delivers total video systems solutions
- Manufactures a wide range of video signal distribution solutions and digital video processing products, such as Video and Audio processors, Switchers, Matrix Switchers, Distribution Amplifiers, Cables, CAT5 Baluns, Adapters, and more
- “Father of DVD” - Developed architecture and system software for world first Digital Video Disk (DVD) MPEG2 based authoring system - key DVD enabling technology
- Emmy Award Winner for DVD technology development
- 2009 Inductee as one of the Top 200 Pioneers of HDTV by the Academy of DTV Pioneers (CEA)
- SMPTE Fellow
About Key Digital

- In just 11 years, Key Digital has been branded as a global leader in digital video technologies
  - World Headquarters: Mt. Vernon, NY

- All product Design & Engineering, all Logistical & Corporate Operations are USA Based
- All products are brought to life by HDTV Pioneer Mike Tsinberg and his team of highly trained Video Engineers
About Key Digital

- **BRAND PROTECTION = HIGHER MARGINS**

- Key Digital is recognized as the BEST BRAND in Class
- Industry Recognized Quality Products
- “Commercial Grade Build” Performance Products

- **NO UNAUTHORIZED INTERNET RESELLERS**
- Confidence in selling at MSRP
- Distributors are NOT authorized to sell to end-users or web dealers
- = High Margin for Resellers
Phantom Series HDMI Switchers

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Introduction to Phantom Series

- Phantom Series HDMI product line enables a streamlined, cost-effective HDMI solution that delivers the quality, performance, and reliability that Key Digital is known for.

- In the past, Custom A/V Dealers and Installers have stepped up to Key Digital as their HDMI problem solver, relying on Key Digital’s HDMI expertise to make HDMI plug and play instead of plug and pray in their most important jobs.

- With the introduction of the new Phantom Series line, Key Digital allows you to step into high-quality HDMI distribution and switching.

- Key Digital's Phantom Series features a variety of SKU’s, meaning you pay for the solution you need- and nothing more.

- Phantom Series HDMI Distribution Amplifiers include 1x2 (KD-HDDA1X2), 1x3 (KD-HDDA1X3), 1x4 (KD-HDDA1X4), and 1x8 (KD-HDDA1X8)

- Phantom Series HDMI Switchers include 2x1 (KD-HDSW2X1), 3x1 (KD-HDSW3X1), and 4x1(KD-HDSW4X1)
Phantom Series HDMI Switchers

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Product Training by Category

Distribution Amplifier:

- **KD-HDDA1X2**
  - Phantom Series HDMI DA

- **KD-HDDA1X3**

- **KD-HDDA1X4**

- **KD-HDDA1X8**

**Key Features**

- Distributes 1 HDMI / DVI source to 2/3/4/8 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 / DVI: 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 HDCP, HDMI 1.3a/b, Deep Color (12 bits/color) Video
- Supports lossless compressed digital audio (Dolby® TrueHD, Dolby® Digital Plus and DTS™-HD Master Audio)
- Rack Mountable. Includes Rack ears (1/2 Rack)
Product Training

- Key Digital is recognized as the Experts in Digital Video Technology and Solutions and as such refuses to point fingers and re-direct blame when it comes to HDMI

- Key Digital’s innovative EDID Control™ Technology was introduced over three years ago with the release of the KD-HDMI2X4P HDMI Distribution Amplifier and has offered a rock-solid solution since inception allowing flawless HDMI systems that feature as many as 100 displays

- Key Digital units that feature EDID Control:
  » KD-HDMI2X4P
  » KD-VPHD3
  » KD-HDMS4X4
  » All Phantom Series Distribution Amplifiers and Switchers

- Key Digital has the answers and solutions to lead you into HDMI installations with confidence!
Product Training by Category

- **EDID Control in all Phantom Series Products**
  - Key Digital’s EDID Control technology is capable of reading and modifying display EDID in order to achieve user desirable display of video and audio.

<table>
<thead>
<tr>
<th>Configuration</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Auto selection of highest common EDID of output devices</td>
</tr>
<tr>
<td>001</td>
<td>EDID of first detected output (1 through 8)</td>
</tr>
<tr>
<td>010</td>
<td>Video = 1080i, Audio = L/R Stereo</td>
</tr>
<tr>
<td>011</td>
<td>Video = 1080i, Audio = All Audio formats including HDMI 1.3a/b</td>
</tr>
<tr>
<td>100</td>
<td>Highest common EDID, restricting against HDMI 1.3 standards</td>
</tr>
<tr>
<td>101</td>
<td>EDID of first detected output, restricting against HDMI 1.3 standards</td>
</tr>
<tr>
<td>110</td>
<td>Video = 1080p Audio = L/R Stereo</td>
</tr>
<tr>
<td>111</td>
<td>Video = 1080p Audio = All Audio formats including HDMI 1.3a/b</td>
</tr>
<tr>
<td>All Others</td>
<td>Highest common EDID of output devices</td>
</tr>
</tbody>
</table>
Product Training by Category

Sat / Cable STB

EDID file: 480p, 1080p, 2-CH Stereo

EDID file: 480p, 1080p, 1.3 Audio

EDID file: 480p, 1080p, 2-CH Stereo
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Product Sales

- Designing entire solutions using each Key Digital product category:
  - Does your customer need one source to many displays?
    - Product Category: Distribution Amplifiers
  - Does your customer need many sources to one display?
    - Product Category: Switchers
  - Does your customer need many sources to many displays?
    - Product Category: Matrix Switchers
  - Does your customer need to convert various Video and Audio formats and resolutions?
    - Product Category: Video Processors
  - Does your customer need to extend Video, Audio, and Control via CAT5?
    - Product Category: CAT5/6/7 Balun Devices
  - Does your customer need best in class HDMI cables for all interconnects up to 125 feet?
    - Product Category: Red Iguana and HD Python Series HDMI Cables
Product Sales

- Designing entire solutions using each Key Digital product category:
  
  » **System Design Example #1**
  » Customer would like a Digital Signage solution to distribute an HDMI Video source to many displays showing an identical (mirrored) image.
    - Requires: Distribution Amplifier
  » There are 4 Selectable Sources available
    - Requires: Switcher
  » One of the sources is a Computer with VGA output
    - Requires: Video Processor
  » They would like to extend video to each display via CAT5 cabling
    - Requires: CAT5/6/7 Balun Device
### Key Digital Webinar Series

**4 HDMI Source Switching with Distribution to 4 Displays**

Featuring VGA to HDMI Conversion and CAT5

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**Requirement 1:** Identical (mirrored) displays.
- **Needs:** Distribution Amplifier

**Requirement 2:** Selecting one of the 4 sources.
- **Needs:** Switcher

**Requirement 3:** Converting PC w/ VGA Output to HDMI.
- **Needs:** Video Processor

**Requirement 4:** Extending video to each display via CAT5 cabling.
- **Needs:** CAT5/6/7 Balun Devices

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**Digital Signage Server**

- HDMI

**DVD**

- HDMI 1
  - HDMI 1
  - HDMI 2
  - HDMI 3
  - HDMI 4

**PC**

- VGA
  - HDMI

**KD-HDSW4X1**

**KD-HDDA1X4**

**KD-CATHD (x4)**

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**Display 1**: HDMI

**Display 2**: HDMI

**Display 3**: HDMI

**Display 4**: HDMI

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CAT5/6/7

@ 1080p ≤ 150 ft

@ 1080i ≤ 300 ft
Phantom Series HDMI Switchers

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Phantom Series HDMI DA Line Recap

- HDMI Distribution Amplifiers
  - KD-HDDA1X2
  - KD-HDDA1X3
  - KD-HDDA1X4
  - KD-HDDA1X8

- HDMI Switchers (Webinar #1)
  - KD-HDSW2X1
  - KD-HDSW3X1
  - KD-HDSW4X1
Phantom Series HDMI DA Line Recap

- **KD-HDDA1X8**
Phantom Series HDMI DA Line Recap

- **KD-HDDA1X4**
Phantom Series HDMI DA Line Recap

- **KD-HDDA1X3**
Phantom Series HDMI DA Line Recap

- **KD-HDDA1X2**
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Key Digital System Design Group (SDG™)

- Key Digital’s System Design Group will create the system for you-FOR FREE!
- Customized, professional quality layouts
- Easy to read, highly effective- Perfect closing tool for proposals
- Go to www.keydigital.com → Technical → System Design Group for the SDG Questionnaire.
- Send your System Design Request to sdg@keydigital.com

- Is this a residential, commercial, educational, or government facility? Please describe the installation site and timeline for installation.
- When do you anticipate the system will be purchased?
- Will this system require video and audio?
- Please list source types and quantities
- Are any sources located away from the equipment rack / equipment room? If so, please explain
- What is the desired video format and resolution?
- How many and what types of displays will be used?
- How many zones are planned for the system?
- What is the desired video format and resolution?
- How many and what types of displays will be used?
- How many zones are planned for the system?
- Will you distribute video and audio via conventional cabling or CAT5?
- What type of control system is desired and from what manufacturer?
Product Sales

- Designing entire solutions using each Key Digital product category:

  » **System Design Example #2**
  - Customer would like to view Blu-Ray DVD player in any of 3 Zones
    - Requires: Distribution Amplifier
  - They would like to extend video to the display via CAT5 cabling
    - Requires: CAT5/6/7 Balun Device
Requirement 1: Distributing source to be viewed on 3 Displays.
Needs: Distribution Amplifier

Requirement 2: Extending video to the Display via CAT5 cabling.
Needs: CAT5/6/7 Balun Device

Blu-Ray ➔ KD-HDDA1X3 ➔ KD-CATHD (x3) ➔ Display

Family Rm ➔ Master Bed ➔ Game Rm

CAT5/6/7
@ 1080p ≤ 150 ft
@ 1080i ≤ 300 ft
Product Sales

- Designing entire solutions using each Key Digital product category:
  
  » **System Design Example #3**
  » Retail showroom would like a solution to distribute HDMI 1080p to all 10 displays on the video wall
    - Requires: Distribution Amplifier
  » They would like to select either Blu-Ray or Set Top Box as a source
    - Requires: Switcher
Requirement 1: Distributing 1 HDMI 1080p to 10 Displays.  
Needs: Distribution Amplifier

Requirement 2: Selecting the two sources to be distributed.  
Needs: Swticher

Cable / Sat

Blu Ray

KD-HD-SW2X1

KD-HDDA1X8

KD-HDDA1X3

Displays (10)
Product Sales

- Designing entire solutions using each Key Digital product category:

  » **System Design Example #4**
  
  » Customers would like an HDMI Matrix Solution to enable 5 sources to be viewed on 6 displays
    - Requires: HDMI Matrix Switcher
  
  » To enable this matrix configuration would require each source to be distributed to 2 HDMI Matrix Switchers
    - Required Distribution Amplifier
  
  » They would like to extend Video, Audio, and Control via CAT5 Cabling
    - Requires: CAT5/6/7 Balun Device
### Requirement 1: Viewing any Source at any time on any Display.
**Needs:** Matrix Switcher

### Requirement 2: Distributing the Sources to be input into each Matrix Switcher.
**Needs:** Distribution Amplifier

### Requirement 3: Extending Video, Audio, and Control via CAT5/6/7 Cabling.
**Needs:** CAT5/6/7 Balun Device
We Are Here to Help You!!!!

Sales -
  » E-mail: sales@keydigital.com

SDG – System Design Group
  » E-mail: sdg@keydigital.com

Technical Support
For technical questions about using Key Digital® products, please contact us at either:
  » Phone: 914-667-9700 x3
  » Dwayne Husbands x301

Customer Support
For customer support questions please contact us at either:
  » Phone: 914-667-9700 ext 220
  » E-mail: customersupport@keydigital.com
Key Digital Webinar Series Schedule

- **Title:** Basics of Key Digital Matrix Switchers  
  - Date: Friday, April 9th  
  - Time: 2PM EST

- **Title:** KD-HDMS4X4 HDMI Matrix Switcher - Making HDMI Plug and Play Instead of Plug and Pray  
  - Date: Friday, April 23rd  
  - Time: 2 PM EST

- **Title:** Advanced Control Features of KD-HDMS4X4 and KD-MSCAT8X8 Hercules Series Matrix Switchers  
  - Date: Friday, May 7th  
  - Time: 2 PM EST

- **Title:** Using Key Digital Digital Video Processors and Adapters to break down the barriers of video formats and resolutions  
  - Date: Friday, May 21st  
  - Time: 2 PM EST

- Visit [http://www.keydigital.com/webinars.aspx](http://www.keydigital.com/webinars.aspx) for complete details
THANK YOU