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Key Digital®, led by digital video pioneer Mike Tsinberg, develops and manufactures high quality, cutting-edge technology solutions for virtually all applications where high quality video imaging is important. Key Digital® is at the forefront of the video industry for Home Theater Retailers, Custom Installers, System Integrators, Broadcasters, Manufacturers, and Consumers. We provide total video system solutions because we know and help drive the technology, the industry, the business, and all the latest up-and-coming standards. But most of all, we know exactly what you need for your unique application - the right solution.



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# KD-HDDA1X1

HDMI® Extender, Booster & Buffer with EDID Control,  
 3D, Audio Return Channel and Ethernet

## Operating Instructions



Key Digital® Phantom Series™ HDMI Cable Extender and Data Buffer allows extending HDMI cabling while maintaining the highest possible quality of signal over long HDMI runs. Helps buffer and negotiate HDCP and EDID data interactions between the source and display. A built in library of default EDID files allow various video resolutions including 3D, 4K and various Audio formats including HD Audio types. Fully HDMI® 1.4 compliant.

**HDMI®**  
 HIGH-DEFINITION MULTIMEDIA INTERFACE



**Key digital®**

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## About KD-HDDA1X1

### Description

- › The Phantom Series™ KD-HDDA1x1 HDMI extender features the capability to repeat HDMI to 65 ft. and equalize the signal for reliable transmission over greater distances than standard cabling. Up to 3 KD-HDDA1x1 may be daisy-chained. Utilizing the latest HDMI standards including HDMI® 1.4, the KD-HDDA1x1 passes: 3D and 4K signals, HD Audio and ARC (Audio Return Channel) information back from the display (for ARC capable devices) and bi-directional Ethernet up to 100 mb/s. Built-in library of 10 EDID files.

### Key Features

- › Capable of repeating 1080p resolution up to 65 ft. (20 meters).
- › Auto-adjustment of equalization, buffering and amplification
- › 10 available built in EDID Library settings.
- › HDMI 1.4 features compliant:
  - › 3D, 4K , ARC and Ethernet
- › HDCP compliant

### Key Benefits

- › Built in EDID Library settings permit passing 3D signals
- › Allows extending HDMI for longer runs than normally possible
- › Ultra small design for many applications
- › Fixes many HDMI related issues such as HDCP and EDID handshake
- › Fully HDMI 1.4 compliant

### Accessories

- › 5V 2A DC Power Supply



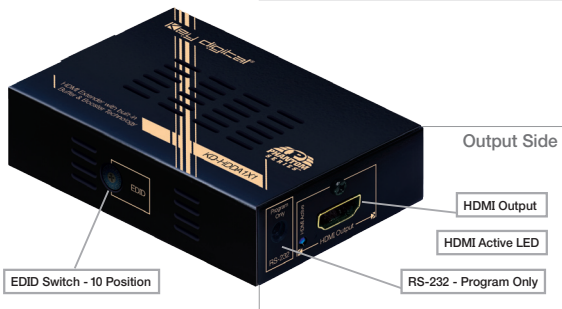
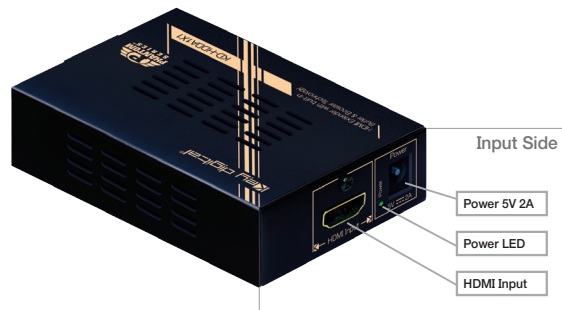
Please read all instructions to insure safe operation of the product.



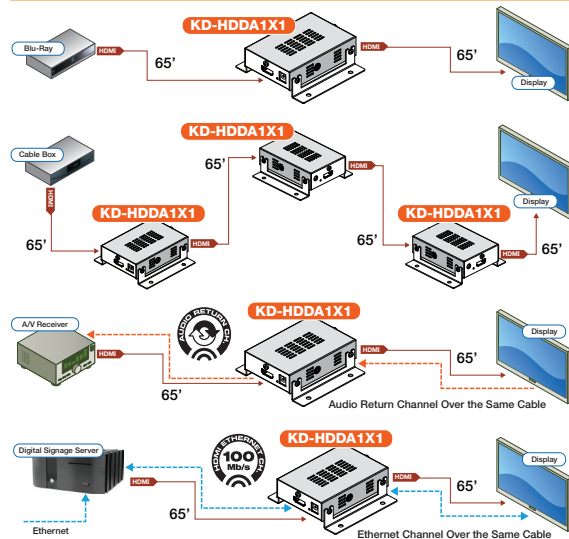
You MUST use the Power Supply provided with your unit or you VOID the Key Digital® Warranty and risk damage to your unit and associated equipment.

## Connections

The KD-HDDA1x1 provides 1x HDMI Input and 1x HDMI Output, a 3.5mm stereo mini-jack for programming, a 10 position rotary EDID switch, and a 5V 2A power connection.



## Application Examples



## Quick Setup Guide

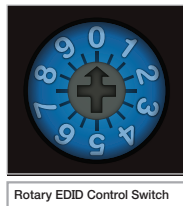
With the power supply disconnected, connect the source HDMI cable to the Input and the Display HDMI to the Output. If a specific EDID is required, set it now (see 'Settings' below for more information regarding EDID). At this point you may power on your display, then the KD-HDDA1x1 followed by the source.

## Settings

There is a library of 10 built in EDID (Extended Display Identification Data) settings. EDID is part of the HDMI "Handshake". The default setting, '0' copies the displays EDID information to the internal memory of the KD-HDDA1x1. EDID settings can help negotiate the HDMI handshake in certain situations and may be necessary when connecting to or from an AV Receiver, or for passing 3D content derived from a Cable or Satellite source. They may also speed up the switching when connected to a Cable or Satellite receiver.

The possible EDID settings can range from '0' to '9'. ('0' is the default).

0	EDID from connected display
1	1080i w/ PCM 2ch Digital Audio
2	1080i w/ HD Audio
3	1080p w/ PCM 2ch Digital Audio
4	1080p w/ HD Audio
5	3D w/ PCM 2ch Digital Audio
6	3D w/ Dolby Audio
7	3D w/ HD Audio
8	DVI VESA 1280x1024
9	DVI VESA 1920x1200



To change EDID settings, use a small flat bladed screwdriver to turn the rotary switch towards the EDID number desired. The switch has click positions to make sure the arrow is pointing at a number, not in-between. There is no need to power the unit off when adjusting the EDID settings. The unit will automatically renegotiate the new handshake in a few seconds. Please follow this procedure for subsequent EDID changes.

When selecting an EDID from the library, your source device will "see" the KD-HDDA1x1 EDID choice instead of the displays EDID, overriding the displays own EDID information. If your display is not capable of accepting the video resolution or audio type selected, you may not see a picture or sound. In this case please choose another more compatible EDID, or use the default EDID.

## Specifications

### Technical

- › HDMI Video/Audio signal: 1.2V p-p
- › HDMI Connector: Type A 19 Pin Female
- › Supports HDMI standards: Supports HDMI 1.4 features – 3D, 4K resolution and ARC (Audio Return Channel), Ethernet and is fully HDCP compliant
- › Audio: Supports DTS-HD, Dolby TrueHD and 2 CH PCM
- › Video Resolutions Supported: DTV/HDTV; 1080P/1080i/720P/576P/480P/576i/480i
- › DDC Signal: 5V p-p (TTL)
- › Power Consumption: <2Watts

### General

- › Regulation: CE, FCC, RoHS, WEEE
- › External 5 Volt 2 Amp power supply
- › Dimensions: 3 5/8" W x 2 1/2" x 1" (92mm x 63mm x 25mm)
- › Weight: 4 oz.
- › Shipping Weight: 16 oz.



### Important Product Warnings:

1. Always test for proper operation of the unit before permanently securing to final location.
2. Connect all cables before providing power to the unit.



### Safety Instructions.

Please be sure to follow these instructions for safe operation of your unit.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Only use attachments/accessories specified by the manufacturer.
10. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



**You MUST use the Power Supply provided with your unit or you VOID the Key Digital® Warranty and risk damage to your unit and associated equipment.**

## How to Contact Key Digital®

### System Design Group (SDG)

For system design questions please contact us at:

- › Phone: **914-667-9700**
- › E-mail: [sdg@keydigital.com](mailto:sdg@keydigital.com)

### Customer Support

For customer support questions please contact us at:

- › Phone: **914-667-9700**
- › E-mail: [customersupport@keydigital.com](mailto:customersupport@keydigital.com)

### Technical Support

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

- › Phone: **914-667-9700**
- › E-mail: [tech@keydigital.com](mailto:tech@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**
- › E-mail: [rma@keydigital.com](mailto:rma@keydigital.com)

### Feedback

Please email any comments/questions about the manual to:

- › E-mail: [customersupport@keydigital.com](mailto:customersupport@keydigital.com)

## Warranty

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All Key Digital® products are built to high manufacturing standards and should provide years of trouble-free operation. They are backed by a limited two-year parts and labor warranty.