

# 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)

# Operating Instructions



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MANAGEMENT SOFTWARE

#### **Table of Contents**

Quick Setup Guide	2
Application Example	3
Connections, Buttons, and LEDs.	7
TCP/IP Commands	14
Specifications	16
Important Product Warnings & Safety Instructions:	17
Contacting Key Digital	17
Warranty Information	17

# Default IP Address: 192.168.1.239, Port 23

# Always follow the instructions provided in this Operating Manual.

Please visit <u>www.keydigital.com</u> for the latest product documentation and software downloads. Product features and specifications are subject to change without notice.

# Introduction

KD-PS22UTx is an HDBaseT transmitter + presentation switcher + soft-codec enabling interface with two HDMI inputs, as well as two USB-A connections, and one USB-B connection. The KD-PS22UTx also includes a local pass-through output for an additional display. KD-PS22UTx is ideal for professional video installations in conference rooms, classrooms, lecture halls, auditoriums, as well as audio return / ARC applications. KD-PS22UTx is natively received by KD-X100MRx black box HDBaseT Rx or by KD-UPS52U Presentation Switcher. The KD-PS22UTx and both Rx options have audio de-embedding for ease of integration with audio systems. Additional Key Digital Presentation Switchers also support integration with KD-PS22UTx. KD-PS22UTx features push-button or TCP/IP switching selection of the desired source and is KD-App Ready. KD-PS22UTx is HDCP 2.2 compliant and supports 4K/UHD 24/25/30/60 (4:4:4) resolutions with up to 18Gbps bandwidth. 4K/UHD signals are extended up to 100m / 328ft and 1080p up to 150m / 492ft via single CAT5e/6 cable. In addition to AV signals, KD-PS22UTx extends USB 2.0, IR, RS-232, and LAN for controlling remotely located equipment.

#### **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 Enabling System: USB Host + Device ports on wall plate and chosen Rx / Presentation Switch 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 and 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<sup>®</sup> App Ready. Key Digital Management Software<sup>™</sup> Pro (KDMS<sup>™</sup> Pro) ready, Compass Control<sup>®</sup> Pro ready. Fully controllable by all IR, RS-232, and TCP/IP supported control systems via open API.

#### Included Accessories

- » IR sensor (qty 1); IR emitter (qty 1)
- » KD-PS50W48VC 50W power supply (48V/1.04A) (Qty1)
- » L-Bracket (gty 2); Ear Mount Screw (gty 4)
- » 6-pin phoenix terminal (qty 1); 3-pin phoenix terminal (qty 1)
- » 6 ft USB Micro cable (qty 1); 6 ft USB A to B data cable (qty 1)

# **Quick Setup Guide**



Rx UNITS SOLD SEPARATELY. Go to Presentation Solutions section for compatible Rx models.

# CONNECT:



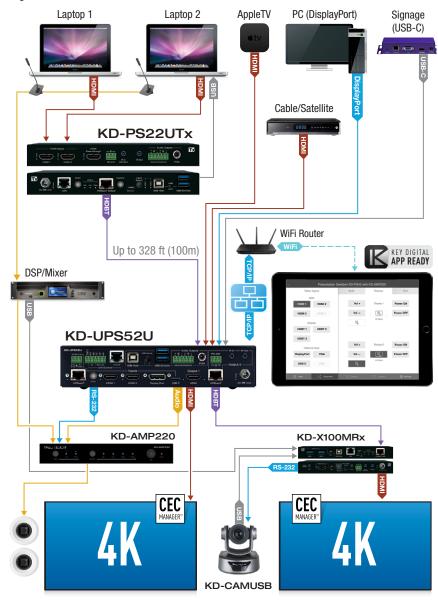
You **MUST** use the Power Supply provided with your unit or you **VOID** the Key Digital® Warranty and risk damage to your unit and associated equipment.

Begin with the KD-PS22UTx, KD-UPS52U (sold separately), KD-X100MRX (sold separately), USB camera (sold separately), all input/output devices, and audio system powered off

- 1. Connect HDMI sources to the input ports of KD-PS22UTx unit
- **2.** (Optional) Connect HDMI, Display Port, USB-C, VGA sources to presentation switcher (sold separately). Port connectivity varies by presentation switcher model.
- 3. Connect HDMI displays / projectors to the HDMI output port of the RX unit / presentation switcher
- **4.** Connect USB devices into desired USB A ports or USB host computer to desired USB B ports at KD-PS22UTx, HDBaseT Rx, or presentation switcher.
  - » <u>Note:</u> When using KD-UPS52U presentation switcher the connection location of the USB devices and host is determined by the USB mode selection switch. Please refer to <u>KD-UPS52U Quick Setup</u> <u>Guide</u> for more information.
- 5. Connect CAT5e/6 cabling to Tx and Rx unit / presentation switch. Use 568-B standard termination on both ends, avoiding couplers, and excess CAT cable length
- 6. To send the selected audio source into audio systems, connect from the analog or digital audio deembed outputs of the KD-PS22UTx / Rx unit / presentation switcher
- Connect control system or PC to LAN port of the KD-PS22UTx, Presentation Switch or Rx unit for network connectivity
- **8.** Connect IR/RS-232 wiring from control system into IR/RS-232 pass-thru ports of KD-PS22UTx and IR/RS-232 ports of the Presentation Switcher / Rx unit.
- Screw-in power supply to the KD-PS22UTx, KD-UPS52U or KD-X100MRx unit. Only 1 power connection is needed. Then, connect power to outlets.
- 10. Power on HDMI sources and displays, audio systems, connected computers, USB devices and hosts

# **Application Example**

## Integration with KD-UPS52U:

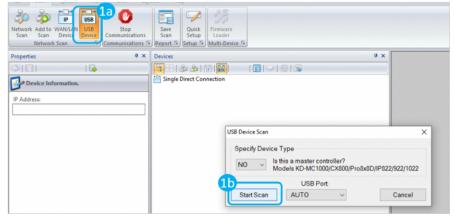


#### **CONFIGURE:**

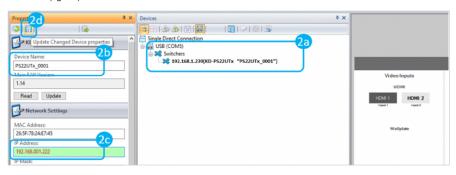
# All software configuration for the system is done via Key Digital Management Software™ Pro (KDMS™ Pro) that can be downloaded here: KDMS™ Pro Download

- Connect to KD-PS22UTx from your PC using the USB micro port on the face of the unit
- 2. Open KDMS<sup>™</sup> Pro software are perform a USB Device scan (fig. 1):

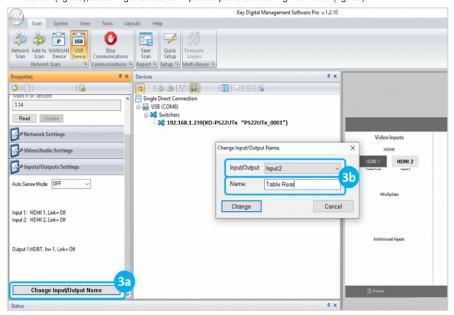




- 3. Choose the device from the Devices window (fig. 2a)
- **4.** Set the desired Device Name in the KD-PS22UTx Information window (fig. 2b)
- 5. In the Network Settings section of the Properties window, enter the desired IP settings (fig. 2c)
  - a. IP Address (default is 192.168.1.239)
  - b. Subnet Mask (default is 255.255.255.0)
  - c. Gateway (default is 192.168.1.1)
  - » d. Port (default is 23)
  - » i. Note: If using KD-App, please do not change the port number.
- **6.** Save (fig. 2d)



7. If using KD-App or KDMS for control, set the desired Input/Output names by entering the Input/Output Settings section of the properties window, and selecting the Change Input/Output Name button (fig. 3a), selecting the desired input/output and entering the name (fig. 3b)



- **8.** Set the EDID rotary to position "A" for 4K video with 2ch audio. Choose setting "4" for 1080p video with 2ch audio. Refer to the <u>Connections</u>, <u>Buttons</u>, <u>and LEDs</u> section for more options and information.
- Additional settings may be adjusted in the KDMS software. Full access to all settings/commands is achieved via terminal session using Tera Term or PuTTy software.
- 10. Your unit is now ready to control from the KDMS Control Panel, KD-App, or by professional control system.



## CONTROL:

#### Option 1: Control via Push Button

#### > Input Select

- a. Alternates between Inputs 1 and 2
- b. Auto Switching is enabled via Control rotary



# Option 2: Control via KD-App, Key Digital Management Software™

#### > KD-PS22UTx is controllable by:

- » Key Digital's user-friendly iOS App (downloadable in the App Store)
- » Key Digital Management Software<sup>™</sup> (downloadable here).

#### > Configuration Steps:

- » Connect and configure KD-PS22UTx as described in this Quick Setup Guide.
- » Download and open KD-App and/or KDMS™
- » Ensure the iOS device and/or PC computer are on the same network with KD-PS22UTx
- » Perform a network scan in the KD-App/KDMS™
- » Select and control the selected KD-PS22UTx



#### Option 3: Control via professional control system

KD-PS22UTx allows control over TCP/IP interface for bi-directional communication. You may connect to the LAN port of the KD-PS22UTx, KD-X100MRx, or KD-UPS52U to deliver network connectivity to the Key Digital devices.

# Default IP Address: 192.168.1.239, Port 23

- > For TCP/IP control, the default static IP address is 192.168.1.239, with port 23
- RS-232 connection is used for control pass-thru to connected devices, not for unit control of the KD-PS22UTx
- > For the past 10 years, most Key Digital switches have supported a standard audio+video switching command. KD-PS22UTx is also controllable by this command, so if you have previously integrated Key Digital switches by third-party control systems you may have success using the same driver/module.
  - » Switching Video + Audio together (two commands supported)
    - » **SP001Slyy** yy = input number (01-02)
    - » SPOSlyy yy = input number (01-02)

# Connections, Buttons, and LEDs

- > HDMI Inputs: Using an HDMI cable, connect your HDMI sources.
  - » Supports up to UHD/4K @ 50/60 fps [4:4:4], 18Gbps
    - » See Supported Standard 4K Video Formats table below
  - » Supports HDR10 and Dolby Vision
  - » Compliant with HDCP 2.2 and previous
  - » Supports lossless compressed audio formats including Dolby® TrueHD, Dolby® Digital Plus, DTS-HD Master Audio™, and Dolby® Atmos
  - » Does not support CEC pass through from display connected to Rx unit / presentation switch
  - » Active light to the left of each port illuminates when there is an active HDMI signal passing through.



#### Supported standard 4K Video Formats:

	Resolution	Bandwidth
1	4K@24/25/30 [4:4:4] 8bit	< 10.2Gbps
2	4K@24/25/30 [4:2:2] 8/10/12bit	< 10.2Gbps
3	4K@50/60 [4:2:0] 8bit	< 10.2Gbps
4	4K@24/25/30 [4:4:4] 10/12bit	< 18Gbps
5	4K@50/60 [4:2:2] 8/10/12bit	< 18Gbps
6	4K@50/60 [4:2:0] 10/12bit	< 18Gbps
7	4K@50/60 [4:4:4] 8bit	< 18Gbps

- HDMI Pass-through: Provides a local output for the selected input. Allows for one additional display to be connected near the sources
  - » Active light to the left illuminates when there is HPD from display



- > Power, Link, Video LEDs: Indicate system connectivity status
  - » **Power** (red) illuminates solid with proper powering from Rx unit / presentation switch
  - » Link (blue) illuminates solid from healthy HDBaseT connectivity with Rx unit / presentation switch
  - » Video (green) illuminates solid with active HDMI signal
  - » Live (yellow) steady blinking indicates active CPU



#### > USB Device Ports

- » Supports USB2.0 and previous
- » 2 USB Device ports are included, and can be used simultaneously
- » Used for connecting USB endpoints (ie web cam, keyboard, mouse)
- » Not used for connecting USB hosts (ie computer)
- » Supports connectivity to USB hubs but may not exceed 15 endpoint devices
- » Provides 5V 500mA power
- » Use USB toggle switch to determine if KD-PS22UTx will be used to connect a USB host (USB-B port) or USB device (USB-A port). Both host and device are not simultaneously possible.



#### > USB Host Port:

- » Supports USB2.0 and previous
- » Used for connecting USB host (ie computer)
- » Not used for connecting USB device (ie web cam, keyboard, mouse)
- » Supports connectivity to USB hubs but may not exceed 15 endpoint devices
- » Use USB toggle switch to determine if KD-PS22UTx will be used to connect a USB host (USB-B port) or USB device (USB-A port). Both host and device are not simultaneously possible.



#### > LAN Port:

- » Default static IP address is 192.168.1.239, port 23
- » Used to connect with Network Switch and peripheral devices needing network connectivity and/or TCP/IP control
- » Unit configuration, control, and firmware updates are most commonly achieved with Key Digital Management Software™ Pro, download at KDMS™ Pro Download



#### EDID Rotary

- » EDID authentication is provided from the unit to each of the connected inputs/sources.
- » The EDID file (AKA "handshake") is selected using the EDID rotary on the unit and provides a list of compatible video and audio formats as well as digital data, informing the source device what it should output.
- » Most sources will comply with a new EDID file without a power-cycle, but devices do behave differently
- » Adjustments may speed up sync time during source selection.

Position	EDID Handshake Description	<b>EDID Rotary</b>
0	Copy EDID from HDMI Output 1	EDID
1	1080i, 2CH AUDIO	LDID
2	1080i, DOLBY/DTS 5.1	67897
3	1080i, HD AUDIO	045
4	1080p, 2CH AUDIO	62,030
5	1080p, DOLBY/DTS 5.1	
6	1080p, HD AUDIO	Note: Default position is "A"
7	4Kx2K@60, 10.2G, HDR, 2CH AUDIO	IS A
8	4Kx2K@60, 10.2G, HDR, DOLBY/DTS 5.1	
9	4Kx2K@60, 10.2G, HDR, HD AUDIO	
Α	4Kx2K@60, 18G, HDR, 2CH AUDIO	
В	4Kx2K@60, 18G, HDR, DOLBY/DTS 5.1	
С	4Kx2K@60, 18G, HDR, HD AUDIO	IMPORTANT: Please
D	1280x720p@60 DVI (no audio)	apply light pressure
E	1920x1080p@60 DVI (no audio)	to the EDID rotary when making your
F	4Kx2K@30, 10.2G, HDR, 2CH AUDIO	selection.

- **Control Rotary**: Used to enable Auto-Sensing, forced hot-plug detection, set the IR Input mode, and adjust firmware update mode.
  - » Forced Hot Plug Detection
    - » When ON, Hot Plug Detection voltage is fixed on to the connected sources
    - » Standard HPD passthrough from display to source when set to an OFF position

# Control

#### » Auto Sensing

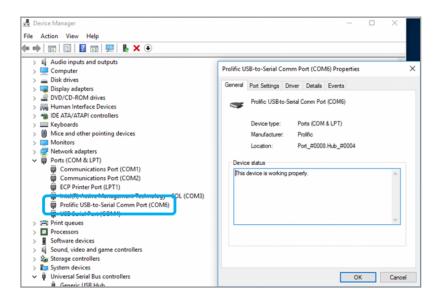
- » ON » Unit will automatically select a newly detected active source. If current source is disconnected or becomes inactive, auto sensing will sequentially advance to an active input/ source
- » OFF » Unit is in normal mode and regular switching functionality will occur
- » IF Auto sensing has been set via any method other than the front Control Rotary, it will be automatically disabled when the KD-PS22UTx is manually controlled by the front panel button, IR, RS-232, TCP/IP, or USB control. If fixed Auto Sensing is required, please set via the front Control Rotary
- » F/W Upgrade mode is used to select firmware upload location
  - » **IMPORTANT:** Consult with Key Digital tech support before updating firmware

Control	Forced HPD	Auto Sensing	IR IN	F/W Upgrade Mode
0	OFF	0FF	Serial IR	Main MCU
1	ON	0FF	Serial IR	Main MCU
2	OFF	ON	Serial IR	Main MCU
3	ON	ON	Serial IR	Main MCU
4	OFF	OFF	IR Sensor	Main MCU
5	ON	0FF	IR Sensor	Main MCU
6	OFF	ON	IR Sensor	Main MCU
7	ON	ON	IR Sensor	Main MCU
8	OFF	0FF	Serial IR	EP1x2 MCU
9	ON	OFF	Serial IR	EP1x2 MCU
Α	OFF	ON	Serial IR	CEC MCU
В	ON	ON	Serial IR	CEC MCU
С	OFF	OFF	IR Sensor	HDBaseT
D	ON	OFF	IR Sensor	HDBaseT
E	OFF	ON	IR Sensor	Reserved
F	ON	ON	IR Sensor	Reserved

#### > Service USB:

- » Used for configuration and control from PC via KDMS Pro, KDMS, or third-party control terminal
- » Used for firmware updates (consult with Key Digital tech support before updating firmware)
- » Supports USB driver for Windows 10, 7, XP, Mac, Linux
- » Will register as "Prolific USB-to-Serial Comm Port in Device Manager
- » Can be used as RS-232 control port. Baud rate is 57,600





#### > Input Select Button

- » Alternates between inputs 1 and 2
- » LED display indicates selected source
- » Auto switching is enabled via the control rotary
- » Press and hold for 10 seconds to reset the unit to factory default settings
- » When factory default occurs, all lights on the unit flash twice.



- > HDBaseT Output: Connect a CAT5e/6 cable to the Rx unit / presentation switch at the port labeled "HDBaseT In"
  - » 4K/UHD (18G): Up to 100m / 328ft
  - » 1080p: Up to 150m / 492ft in Long Range Mode
  - » Must connect with KD-UPS52U, KD-X100MRx, KD-PS42, or KD-X40MRx only
  - » Compatible with third-party HDBaseT Rx
  - » Power over HDBaseT from Rx



# Use with third-party HDBaseT Tx or Rx

The KD-PS22UTx is compatible with third-party HDBaseT or other Key Digital HDBaseT products. **Power must be applied to KD-PS22UTx**.

- **IR In:** The included IR sensor can be connected to the unit via this port.
  - » Corresponds with the IR Out port on the Rx device (KD-X100MRx or KD-UPS52U).
  - » Use the Control Rotary to choose IR Sensor mode or Serial IR mode (ie hard-wired IR from professional control system or IR connection block)



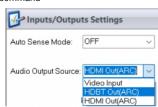
- **IR Out**: The included IR emitter can be connected to the unit via this port.
  - » Corresponds with the IR In port on the Rx device (KD-X100MRx or KD-UPS52U)



- > RS-232 Terminal: Connect with control system for pass-thru of bi-directional RS-232 signals to/ from controlled device.
  - » Supports baud rate up to 115,200bps
  - » KD-PS22UTx is not controllable via RS-232
  - » Corresponds with the RS-232 terminal on Presentation Switch or the Rx device if no Presentation



- Audio Outputs: Includes both Analog balanced Left/Right and Digital RCA outputs for providing audio signal as chosen.
  - » Choose the desired audio signal using KDMS<sup>™</sup> Pro and/or IP command
  - » The 3 potential audio sources are:
    - » 1. (Default) "Video Input": Audio from the selected HDMI source at the KD-PS22UTx unit
    - » 2. "HDBT Out (ARC)": HDMI ARC audio from the TV connected to the RX unit
    - » 3. "HDMI Out (ARC)": HDMI ARC audio from the TV connected to pass-thru port of the KD-PS22UTX unit



#### » Additional Notes:

- » When integrated with KD-X100MRx receiver, HDBT Out ARC could from the HDMI or external audio inputs, as chosen on the ARC Select dipswitch of the KD-X100MRx.
- » The analog audio output is 2VRMS
- » Analog pinout is L+, GND, L-, R+, GND R-.
- » Use L+.GND, R+, GND if unbalanced audio is needed
- » The digital audio output uses SPDIF format IEC 60958 and supports PCM, Dolby/DTS up to 5.1
- » There are no processing or pre-amp features.
- » Any unsupported signal formats are muted on the ports as follows:

Audio Format	Analog L/R Output	Digital Audio Output
2CH PCM	Pass-through	Pass-through
Multi-Channel PCM	Pass-through	Pass-through
DOLBY/DTS	MUTE	Pass-through
HD Audio	MUTE	MUTE



#### TCP/IP Commands

KD-PS22UTx allows bi-directional control over TCP/IP connection made at KD-PS22UTx, KD-UPS52U, or KD-X100MBx

> Default static IP address is 192.168.1.239, port 23

#### Notes:

- » Commands are not case-sensitive
- » Commands require a carriage return following each string
- » Spaces are shown for clarity; commands should NOT have any spaces
- » After a new command is received, a prompt should be sent back

#### Help Command (H). Returns entire API in readable format:

```
KD-PS22UTx
                                                F/W Version: 1.00
-- H
             : Help
-- STA
         : Show Global System Status
-- Video Output Setup Commands: xx = [01-02, A=All], yy = [01-02, U, D]
-- SPO SI yy : Set Output to Video Input yy
-- SPO xx SI yy
                 : Set Output to Video Input yy
-- SPO xx ON/OFF : Set Output xx ON/OFF
-- SPO xx VM E/D : Set Output xx Video Mute Enable/Disable
-- SPO xx DBG ON/OFF : Set Output xx Debug Mode ON/OFF
-- SPO xx LRM ON/OFF : Set HDBT Output xx Long Range Mode ON/OFF
-- Display Control Commands: xx = [01-02, A=All]
-- SPO xx TV ON/OFF : Set Display xx ON/OFF (Turn TV On/OFF)
-- SPO xx AV U/D : Set Display xx Volume Up/Down
-- SPO xx AM E/D/T : Set Display xx Audio Mute Enabled/Disabled/Toggle--
-- Audio Output Setup Commands: [E=Enable, D=Disable]
-- SPO AA E/D : Set External Analog Audio Output Enable/Disable
-- SPO DA E/D : Set External PCM/Digital Audio Output Enable/Disable
-- SPO AMP ON/OFF : Set AMP220 Control Mode ON/OFF
-- SPO MIC ON/OFF : Set AMP220 MIC Mode ON/OFF
-- SPO AS x : Set Audio Source x to Audio Output
             [ x: 0=Video Input, 1=HDBaseT Out(ARC), 2:HDMI Out(ARC) ] --
-- Input/Output/Device Naming Commands [xx=01-04] (c=Max. 16 Chars)
-- SPI xx WN cccccccccccccc : Write Input xx Name
-- SPI xx RN
                             : Read Input xx Name
-- SPO xx WN cccccccccccccc : Write Output xx Name
-- SPO xx RN
                            : Read Output xx Name
-- SPC WN ccccccccccccc
                            : Write Device Name
-- SPC RN
                              : Read Device Name
-- Network Setup, ( xxx=[000-255], zzzz=[0001~9999] )
-- SPCETIPA xxx.xxx.xxx.xxx : Set Host IP Address to xxx.xxx.xxx.xxx
-- SPCETIPM xxx.xxx.xxx.xxx : Set Net Mask to xxx.xxx.xxx.xxx
-- SPCETIPR xxx.xxx.xxx.xxx : Set Route IP Address to xxx.xxx.xxx
-- SPCETIPP zzzz
                  : Set TCP/IP Port to zzzz
-- SPCETIPB
                           : Apply New Network Config
-- System Control Setup Commands:
-- SPC AS z : Set Auto Sense Mode x = [0=OFF, 1=AUTO, 2=FORCED ON]
-- SPC FB E/D : Enable/Disable Front Panel Buttons
-- SPC CAM z : Set CAMUSB Control Mode z = [0-7]
-- SPC RSB z : Set USB RS232 Baud Rate to z bps, z=[0-5]
               [0:115200, 1:57600, 2:38400, 3:19200, 4:9600, 5:4800]
-- SPC DF : Reset to Factory Defaults
-- SPC DF00 : Reset to Factory Defaults without Network Reset
Status Command (STA). Returns unit status and settings in readable format:
-- Model: KD-PS22UTx.
                                         Device Name: PS22UTx 0001
-- Main F/W Ver: 1.00, Splitter Ver: 1.00, CEC Ver: 1.00
-- Service : Baud Rate=115200bps, Data=8bit, Parity=None, Stop=1bit
-- Front Panel Button : Enabled , CAMUSB Control Mode : 0
-- Network Setting (Web Server/TCP Control) Status
-- MAC Address = 60:89:B1:36:00:01
-- Host IP Address = 192.168.001.239
```

```
-- Net Mask = 255.255.255.000
-- Router IP Address = 192.168.001.001
-- TCP Port. = 0023
-- Video Input Status
-- EDID = DEFAULT 10, FORCED HPD = ON , AUTO SENSE = OFF
-- 01 : HDMI1, LINK = ON
-- 02 : HDMI2, LINK = OFF
-- Video Output Status (D=Disable, E=Enable)
-- HDMI Output : IN = 01, OUT = ON , V/MUTE = D, LINK = ON , DBG = OFF --
-- HDBT Output : IN = 01, OUT = ON , V/MUTE = D, LINK = ON , DBG = OFF --
                 I_rRM = OFF
-- Display Output Status (CEC Control)
-- HDMI Output : TV = ON , A/V MUTE = Disable, A/MUTE = Disable
-- HDBT Output : TV = ON , A/V MUTE = Disable, A/MUTE = Disable
-- Audio Output Status
-- Audio Output : IN = Video 01 , Balanced = Enabled, PCM = Enabled
                  AMP220 Mode = OFF, MIC Mode = OFF
```

# **Specifications**

#### Technical:

- » Inputs: 2 HDMI, 1 IR Sensor, 1 Bi-Directional RS-232
- » Outputs: 1 HDBaseT RJ45, 1 Bi-Directional RS-232, 1 IR output
- » DDC Signal (Data): Input DDC Signal: 5 Volts p-p (TTL)
- » HDMI Video/Audio Signal: Input Video Signal: 1.2 Volts p-p
- » RJ45 Connector: Shielded Link Connector, HDBaseT
- » IR Connectors: 1 IR sensor 3.5mm, 1 IR emitter 3.5mm
- » RS-232 Connector: 3-pin phoenix terminal

#### General:

- » 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
- » Accessories: KD-PS50W48VC 50W power supply (48V/1.04A) (qty1); IR sensor (qty 1); IR emitter (qty 1); L-Bracket (qty 2); Ear Mount Screw (qty 4); 6-pin phoenix terminal (qty 1); 3-pin phoenix terminal (qty 1); 6 ft USB Micro cable (qty 1); 6 ft USB A to B data cable (qty 1)

# $oldsymbol{\Lambda}$ Important Product Warnings:

- **1.** Connect all cables before providing power to the unit.
- 2. Test for proper operation before securing unit behind walls or in hard to access spaces.
- If installing the unit into wall or mounting bracket into sheet-rock, provide proper screw support with bolts or sheet-rock anchors.

# $\mathbf{A}$ Safety Instructions:

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

- 1. Read and follow all instructions, and heed all warnings.
- 2. Do not use this device near water.
- 3. Clean only with dry cloth.
- **4.** Install in accordance with the manufacturer's instructions.
- 5. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- **6.** Only use attachments/accessories specified by the manufacturer.
- 7. Refer all servicing to qualified service personnel. Servicing is required when the device has been damaged in any way including damage to the power supply or power plug, or exposure to rain or moisture.



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.

# Contacting Key Digital®

#### **Technical Support**

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

> Phone: 914-667-9700

> E-mail: 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: 914-667-9700E-mail: rma@kevdigital.com

# Warranty Information

All Key Digital® products are built to high manufacturing standards and should provide years of trouble-free operation. They are backed by a Key Digital Limited 3 Year Product Warranty Policy.

https://keydigital.org/warranty





Key Digital®, led by digital video pioneer Mike Tsinberg, develops and manufactures high quality, cutting-edge technology solutions for virtually all applications where high-end video and control are important. Key Digital® is at the forefront of the video industry for Home Theater Retailers, Custom Installers, System Integrators, Broadcasters, Manufacturers, and Consumers.

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