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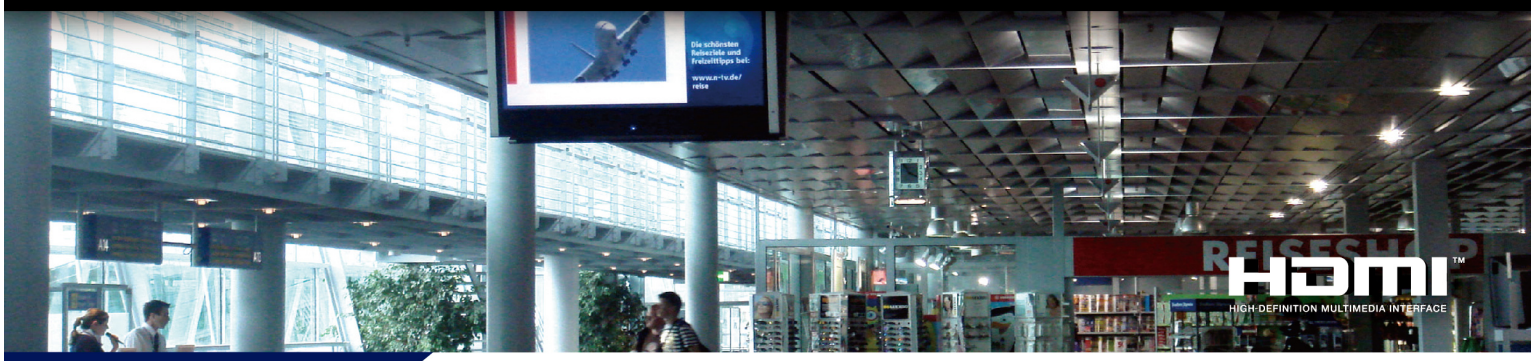
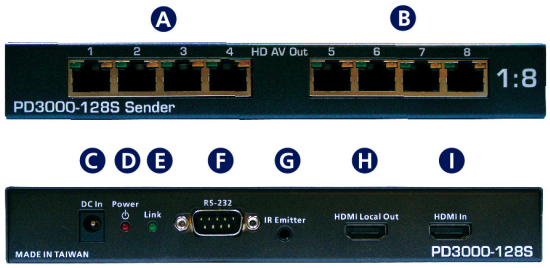
PROFESSIONAL SERIES

Aavara® PD3000-128S HDMI Over Cat5e Daisy Chain 1 to Splitter/Sender Quick Start Guide



PD3000-128S HDMI Over Cat5e Daisy Chain Broadcaster w/ IR & RS-232 Pass-Thru



IR Emitter Cable

Plug into Sender's IR Emitter Port Only!

IR Receiver Cable

Plug into Receiver's IR Receiver Port Only!

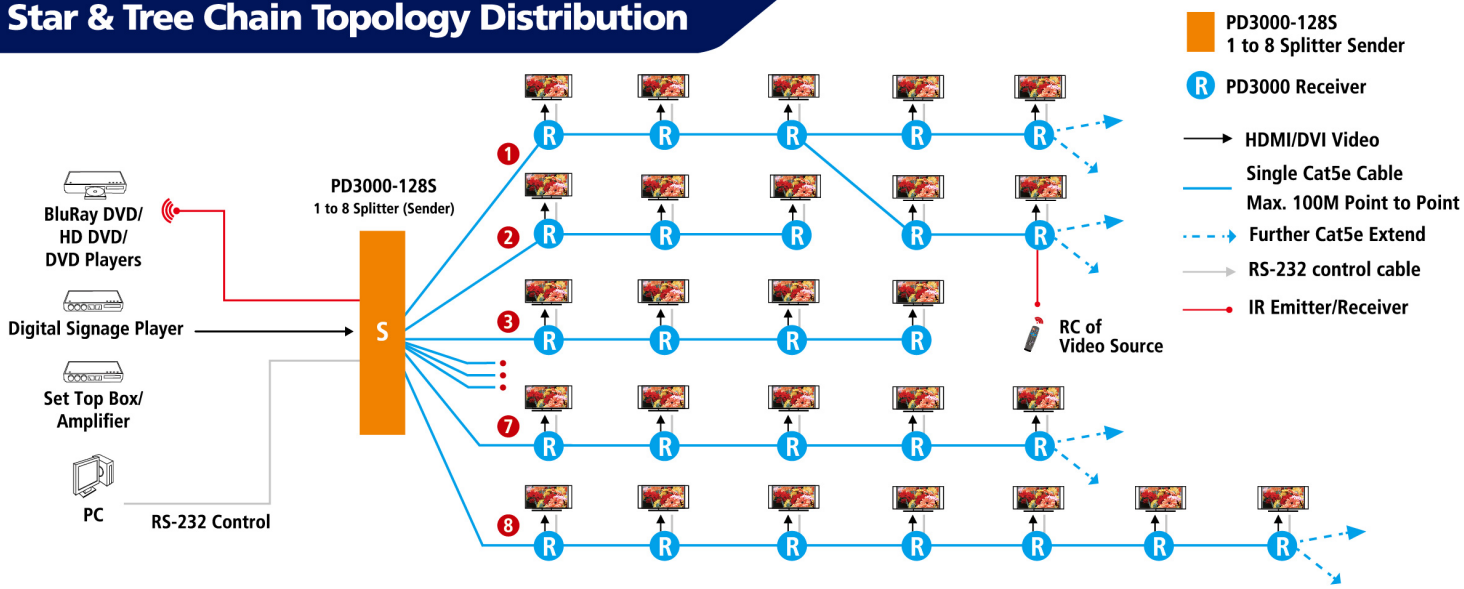
- A HD AV Out LINK RJ-45 Port 1 ~ 4
- B HD AV Out LINK RJ-45 Port 5 ~ 8
- C DC Power in
- D Power LED Indicator
- E Link LED Indicator
- F RS-232 Port for Command Pass-thru
- G IR Emitter Jack for IR Pass-Thru to Video Soruce
- H HDMI Local Out for Monitoring Video Output
- I HDMI Input from Video Soruce

Specification	
HDMI Video Redirection	480p, 576p, 720p, 1080i/p@60Hz
PC DVI Resolution	Up to 1920x1200@60Hz
HDMI Audio Redirection	2 ~ 8 Ch LPCM 5.1 Ch Dolby, DTS 7.1 Ch Dolby TrueHD, DTS-HD
HDMI Specification	v1.3 Compatible
DVI Specification	v1.0 Compliant
HDCP Specification	v1.1 / 1.2
HD AV Link	8 x RJ-45 Ports for 8 x Tree Chain
Cable Distance	Point to Point 100M by Cat5e
Max. Displays Connected	Suggest under 100 Displays per chain
Max. Daisy Chain Layer	Suggest under 10 layers per chain
IR Pass-Thru	20~60KHz, Receiver (Display) to Sender (Video Source)
RS-232 Pass-Thru	Up to 115,200bps
Power Adapter	5V DC
Power Consumption	Under 15W
Dimensions (LxWxH)	190X183X28 (MM)
Weight	550g

* for more information, please visit Aavara.com

1080p Video | 7.1 ch Audio | DVI 1920x1200 | Multi-Layer Tree Chain Topology | 100M Point to Point

Star & Tree Chain Topology Distribution



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Installation

1. Connect HDMI/DVI Video Source to PD3000-128S Sender with HDMI cable/adapter.
2. Connect All HDMI/DVI displays/TVs/Projectors to each PD3000-R Receiver with HDMI Cable/adapter.
3. Connected between PD3000-R Receivers, and to PD3000-128S Splitter/Sender's 8 x RJ45 ports as Star & Tree Chain Cat5e cable layout topology. All PD3000-R Receivers need to connect to chain end to PD3000-128S.
4. Optional IR Control Pass-Thru Setup:
   Install IR Emitter to Sender and toward video source.IR Receiver to Receiver and toward IR remote location.
5. Install Power adapters to all Sender and Receivers.
6. Power On Video Source and video Output.
7. Power on Display/TV/Projectors and select correct HDMI/DVI input form PD3000-R Receiver, start to show video.

IR Control Pass-Thru

When using IR Control pass-thru, Receiver will keep occupying IR channel for 2 seconds after last IR Control command issued. So IR control pass-thru on other Receiver will need to wait 2 seconds after previous Receiver IR Control pass-thru issued.

Copy Display EDID to Sender

Keep Pushing Receiver EDID button, Unplug and plug-in DC power to reboot Receiver, Release EDID button till screen show OSD "EDID copy success". Receiver will send Displsy EDID to Sender for ensuring correct video format output from video source.

Keyboad	Hex Code
Ctrl+c	0 x 03
Ctrl+x	0 x 18
Ctrl+z	0 x 1A

RS-232 Command Pass-Thru Setting

Connect RS-232 cables between PCand Sender, Display and Receivers. **First Time to use, set RS-232 Baud Rate @ 115,200bps and Flow Control Off on PC COM port and assign RS-232 at Broadcast or Unicast mode.** Setup RS-232 Baud Rate @ 115,200 bps on PC and open RS-232 communication with Sender.

RS-232 Broadcast to all Displays/Projectors

Command:

socat5 b [Host baud rate*][Client baud rate]**

Ie. Socat5 b 115200 9600

*Host: PC Baud Rate **Client: Display Baud Rate setting
***Sender can send RS-232 command to multiple receivers at same time. Only one Receiver can feedback to Sender at one time. The Receiver will keep occupying RS-232 return channel 5 sec. after last transmission, then other receiver can take over RS-232 return channel.

RS-232 Unicast to specific one Displsy/Projector

Command:

socat5 u [Host baud rate][Client baud rate][ID0][ID1][DEPTH]

Ie. If OSD show ID 0 0 DEPTH 2, and Display baud rate is 9,600bps. Socat5 u 115200 9600 0 0 2

*To Press the Receiver's EDID button and display will show ID and DEPTH info of this receiver.
**If you choose another Receiver that Sender want to transfer, press the EDID button of original Receiver, its info change to "unicast Not me". It means this Receiver can't transfer data to host and receive data from host.

Change between Broadcasting and Unicast mode, and baud rate setting

In PC RS-232 Console press ctrl+c, ctrl+x, ctrl+z or Send Char (0x03), (0x18), (0x1A) in sequence twice, it shows Press Enter, then enter Command mode.

When "boot#" shows, issue broadcast or unicast command to change and enter the RS-232 Pass-Thru mode.

Reset Sender baud rate when forget previous setting

Unplug network cabel in the Sender, then reboot by unplug and plug-in DC power. Waiting for 4~5 seconds, set PC baud rate @ 115200 bps and open Com port. Then, key in ctrl+c, ctrl+x, ctrl+z or Send Char (0x03), (0x18), (0x1A) in sequence twice (the network cable unplug). Currently, Sender is back to Command mode temporarily. Now you can plug-in network cable and reconfigure the baudrate you want.

Troubleshooting

Problem	Solution
No Video	• Make sure Cat5e cables are well connected from sender to Receiver and further Receiver daisy chain. • Check power indicator and make sure all DC power adapters had well connected to Sender and Receivers, and well plugged into power socket. • Make sure all HDMI cables are well connected between HDMI video source and Sender, Display and Receiver. • Use Copy Display EDID function (instruction above) to improve compatibility.
RS-232 Pass-Thru don't work	• Make sure Broadcasting mode or Unicasting is correctly. And, make sure right mode chosen and setting. • Make sure the baud rate setting on Sender and Receiver are correct, and matching to control panel/PC and display/TV/projector RS-232 port setting. • If RS-232 command rom Receiver to Sender got issue, wat for 5 sec. then issue command at Receiver side again. Only one Receiver can transmit RS-232 at same time. The Receiver will keep occupying RS-232 return channel 5 sec. after last transmission, then other receiver can take over RS-232 return channel. Or, use Unicast mode.
IR Pass-Thru don't work	• Make sure IR emitter cable had been well plugged into IR emitter Jack on Sender. And, toward IR receiver window of video source. • Make sure IR emitter cable had been well plugged into IR emitter Jack on Sender. And, toward IR Remote control location. • Make sure the line of sight between IR receiver cable and IR remote control has nothing to block the IR signal. Avoid any light source flashing on IR receiver. Especially fluorescent lamps or tubes. • Be sure plug-in IR Emitter cable and IR Receiver cable into Sender and Receiver before it power on. • Wait for 3 sec., then press IR remote control again.