

HDMI HDBaseT Receiver with Audio De-Embedding / Bi-directional PoH (4K@100m) (HDBaseT Class A) (PoH PSE & PD)

VE2812PR



Featuring powerful Class A HDBaseT technology, the VE2812PR is a receiver for 4K HDMI video, audio, and control signals over a distance of up to 100 m via a Cat 5e / 6 / 6a or ATEN [2L-2910](#) Cat 6 cable. HDMI signal transmission extends further up to 150 m @ 1080p when the HDBaseT Long Reach Mode is enabled.

Designed to optimize flexibility, the VE2812PR ships with 2-way PoH capability, either allowing a PoH PD-enabled Tx ([VE2812AT](#) series is recommended) to be remotely powered by the locally powered VE2812PR, or enabling power distribution along the cable from a PoH PSE-enabled Tx ([VE1812T](#) is recommended) to the VE2812PR. Speaking of VE2812PR's audio de-embedding, audio signal can be extracted from the incoming HDMI source and then transmitted through Coaxial or Stereo output to external audio distribution systems. The VE2812PR gives users the extra convenience when it comes to extending control and communication signals via the built-in RS-232 and bi-directional IR ports. Plus, it is [HDCP 2.2](#) compliant and supports HDMI specification features, such as 4K2K, 3D, Deep Color, and CEC for reliable transmission of high-quality uncompressed HDMI content.

With all highlights packed in a compact enclosure, the VE2812PR assures easy and discreet installation, keeping the [presentation](#) space tidy. It is ideal for small / mid-sized areas where 4K HDMI and control signal transmission over a long distance is required, such as boardrooms, lecture halls, and digital signage applications.



Features

- Transmits 4K HDMI up to 100 m / 330 ft via a Cat 5e / 6 / 6a or ATEN [2L-2910](#) Cat 6 cable
- Transmits HDMI up to 150 m / 492 ft. @ 1080p in HDBaseT Long Reach Mode
- Bi-directional PoH :
 - allows a PoH PD-enabled Tx to be remotely powered by the locally powered VE2812PR
 - enables power distribution from a PoH PSE-enabled Tx to the VE2812PR over the cable
- Audio de-embedding - extracts audio stream from the HDMI source and delivers as a separate audio from HDMI to Coaxial S/PDIF, or Stereo audio output
- Supports Audio [EDID](#) Switching (2ch Stereo, 5.1ch Surround sound, and AUTO)
- RS-232 serial communication switch - switch between command mode and bypass mode for various application requirements
- Supports bi-directional IR signal transmission (IR transmission is processed one direction at a time)
- HDMI (3D, Deep Color, 4K); [HDCP 2.2](#) compliant
- Firmware upgradable
- Built-in 8KV / 15 KV ESD protection
- Plug-and-play
- Rack-mountable using the [VE-RMK1U](#)

Specifications

Video Output	
Interfaces	1 x HDMI Type A Female (Black)
Impedance	100 Ω
Max. Distance	3 m
Video	
Max. Data Rate	10.2Gbps (3.4Gbps per lane)
Max. Pixel Clock	340 MHz
Compliance	HDMI (3D, Deep Color, 4K) HDCP2.2 Compatible Consumer Electronics Control (CEC)
Max. Resolution	*4K supported: 4096 x 2160 / 3840 x 2160 @ 60Hz (4:2:0); 4096 x 2160 / 3840 x 2160 @ 30Hz (4:4:4)
Max. Resolutions / Distance	Up to 4K@70m (Cat 5e/6) / 100m (Cat 6a/ATEN 2L-2910 Cat6); 1080p@100m (Cat 5e/6/6a)
Audio	
Output	1 x HDMI Type A Female (Black) 1 x Mini Stereo Jack Female (Green) 1 x SPDIF Coaxial Female (Orange)
Control	
RS-232 Channel	Connector: 1 x Terminal Block, 3 pole; Type: DTE Baud Rate: 115200, Data Bits:8, Stop Bits:1, no parity and flow control
IR Channel	1 x Mini Stereo Jack Female (Black), bi-directional full range IR bypass channel
Switches	
Power Selected	1 x Slide Switch - POH Power Selection: PSE / PD
HDMI Mute	1 x Slide Switch - HDMI Audio ON/OFF
Audio EDID Selection	1 x Slide Switch - Audio Output Format Selection: 2ch / 5.1ch / AUTO
Mode Selection	1 x Slide Switch - RS-232 Bypass or Command mode Selection
Long Reach Mode Switch	1 x Slide Switch - Long Reach mode ON/OFF
Firmware Upgrade	1 x Slide Switch - Firmware Upgrade mode ON/OFF
Connectors	
Unit To Unit	1 x RJ-45 Female
Power	1 x DC Jack (Black) with locking 1 x RJ-45 Female, POH PD & PSE supported
Power Consumption	DC5V:5.83W:27BTU POH:7.28W:34BTU
Environmental	
Operating Temperature	0 - 40°C
Storage Temperature	-20 - 60°C
Humidity	0 - 80% RH, Non-Condensing
Physical Properties	
Housing	Metal
Weight	0.50 kg (1.1 lb)
Dimensions (L x W x H) with bracket	14.53 x 12.30 x 3.00 cm (5.72 x 4.84 x 1.18 in.)
Dimensions (L x W x H) without bracket	13.60 x 10.10 x 2.90 cm (5.35 x 3.98 x 1.14 in.)

Diagram

