

VE1821

4K HDMI Cat 6 Extender



As a complete end-to-end solution, the VE1821 comes as a kit that contains a transmitter and a receiver, extending HDMI signals at 4096 x 2160 / 3840 x 2160 @ 30 Hz (4 : 4 : 4) up to 40 m via a Cat 6 cable (ATEN [2L-2910](#) recommended). Crystal-clear video presentation is guaranteed thanks to its capability of transmitting 4K sources without latency. Meanwhile, it supports lossless audio formats, such as LPCM 7.1CH, Dolby TrueHD, Dolby Digital Plus, and DTS-HD Master Audio, to add superior sound to the video content, enhancing the experience for the viewers.

Designed to optimize installation flexibility, the VE1821 features an ultra lightweight, palm-sized enclosure, perfect for mounting or placement in tight spaces. The transmitter includes a local HDMI output port, allowing for cascading purposes or for users to monitor the UHD signal being extended to the receiver. With the built-in EDID switch, users can control which EDID is taken from either display. Plus, the HDMI source can be displayed at the optimal resolution based on the capabilities of the connected display through the EDID Copying Mode. As a result of the IR transmission functionality, the source device connected to the transmitter can be seamlessly controlled from the receiver side, assuring easy and complete control for the user. The VE1821 adopts PoC (Power over Cable) technology, which enables the transmitter to provide power to the receiver via a Cat 6 cable, eliminating the need for a bulky external power supply.

With such a rich set of features, the VE1821 delivers excellent AV transmission quality and flexibility within different installation scenarios, such as meeting facilities, retail settings, entertainment systems, and more.



Features

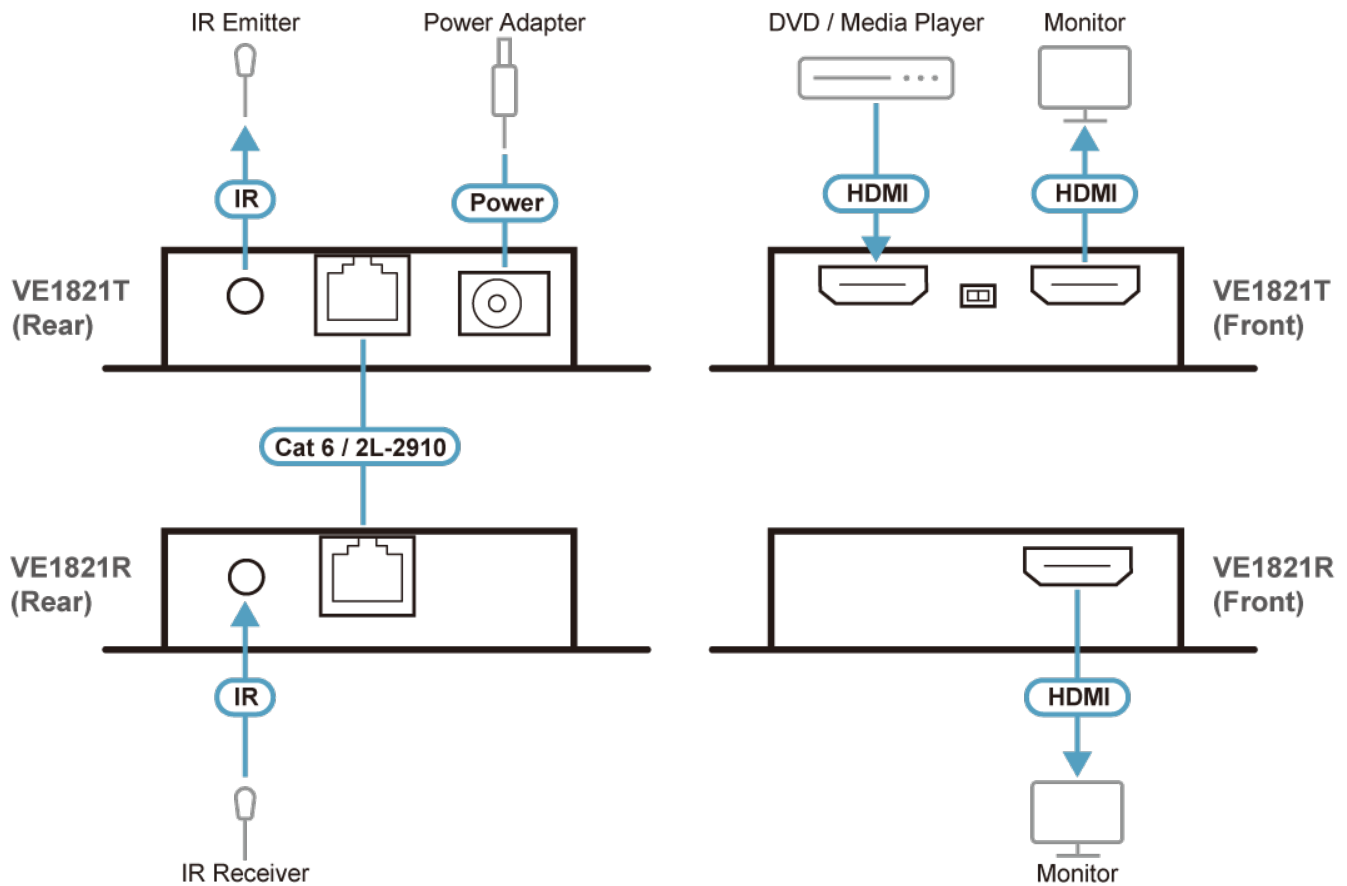
- Includes a transmitter and a receiver to work in tandem to extend 4K HDMI signals over a Cat 5e / 6 cable
- Ultra lightweight, palm-sized enclosure for easy mounting or placement in tight spaces
- Crystal clear 4K HDMI transmission with zero latency across up to 40 m via a Cat 6 cable (ATEN [2L-2910](#) recommended) /30 m via a Cat 5e cable
- Local HDMI output port on the transmitter unit – enables cascading or users to monitor the UHD signal being extended to the receiver
- Built-in EDID switch – users can control which EDID is taken from either display
- EDID Copying Mode – HDMI source can be displayed at the optimal resolution based on the capabilities of the connected display
- IR signal transmission – the source device connected to the transmitter can be seamlessly controlled from the receiver side
- PoC (Power over Cable) technology – power can be delivered from the transmitter to the receiver via a Cat 5e / 6 cable to eliminate the need for a bulky external power supply
- HDMI (3D, Deep Color, 4K); HDCP 1.4 compliant
- Built- in ESD protection
- Plug-and-play – no additional software needed

Specification

Function	VE1821R	VE1821T
Video Input		
Interfaces	N/A	1 x HDMI Type A Female (Black)
Impedance	N/A	100 Ω
Max. Distance	N/A	3 m
Video Output		
Interfaces	1 x HDMI Type A Female (Black)	1 x HDMI Type A Female (Black)
Impedance	100 Ω	100 Ω
Max. Distance	3 m	3 m

Video		
Max. Data Rate	10.2Gbps (3.4Gbps per lane)	10.2Gbps (3.4Gbps per lane)
Max. Pixel Clock	340 MHz	340 MHz
Compliance	HDMI (3D, Deep Color, 4K) HDCP1.4 Compatible	HDMI (3D, Deep Color, 4K) HDCP1.4 Compatible
Max. Resolutions / Distance	Up to 4K@30m (Cat5e), 40m (Cat 6/ATEN 2L-2910); 1080p@35m (Cat5e), 50m (Cat 6/2L-2910) *4K supported: 4096 x 2160 / 3840 x 2160 @ 30Hz (4:4:4)	Up to 4K@30m (Cat5e), 40m (Cat 6/ATEN 2L-2910); 1080p@35m (Cat5e), 50m (Cat 6/2L-2910) *4K supported: 4096 x 2160 / 3840 x 2160 @ 30Hz (4:4:4)
Audio		
Input	N/A	1 x HDMI Type A Female (Black)
Output	1 x HDMI Type A Female (Black)	N/A
Control		
IR Channel	1 x Mini Stereo Jack Female (Black); Single way bypass channel from receiver to transmitter	1 x Mini Stereo Jack Female (Black); Single way bypass channel from receiver to transmitter
Switches		
Mode Switch	N/A	EDID Mode Selection (Read EDID from Transmitter HDMI output or Receiver HDMI output)
Connectors		
Power	1 x RJ-45 Female (Power over Cable, power supply from VE1821T)	1 x DC Jack (Black) with locking
Unit To Unit	1 x RJ-45 Female	1 x RJ-45 Female
Power Consumption	POC:0.87W:4BTU/h Note: ● The measurement in Watts indicates the typical power consumption of the device with no external loading. ● The measurement in BTU/h indicates the power consumption of the device when it is fully loaded.	DC12V:1.86W:9BTU/h Note: ● The measurement in Watts indicates the typical power consumption of the device with no external loading. ● The measurement in BTU/h indicates the power consumption of the device when it is fully loaded.
Environmental		
Operating Temperature	0 - 40°C	0 - 40°C
Storage Temperature	-20 - 60°C	-20 - 60°C
Humidity	20 - 90% RH, Non-Condensing	20 - 90% RH, Non-Condensing
Physical Properties		
Housing	Metal	Metal
Weight	0.12 kg (0.28 lb)	0.12 kg (0.28 lb)
Dimensions (L x W x H) with bracket	7.95 x 6.80 x 1.65 cm (3.13 x 2.68 x 0.65 in.)	7.95 x 6.80 x 1.65 cm (3.13 x 2.68 x 0.65 in.)
Dimensions (L x W x H) without bracket	5.75 x 6.80 x 1.65 cm (2.26 x 2.68 x 0.65 in.)	5.75 x 6.80 x 1.65 cm (2.26 x 2.68 x 0.65 in.)

Diagram



Only connect VE1821T with VE1821R. Connecting VE1821T with other receiver models or third-party receivers may cause physical damage to the receiver.

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