

VE7831A

10M True 4K HDMI Active Optical Cable



ATEN VE7831A optical cables utilize AOC technology that enable conversion between input signals and output signals for optimum high bandwidth data transmissions. The EMI-resistant optical cables are available in 10m with full support of True 4K resolutions. They are fully compliant with HDCP 2.2 standards and meet HDMI specifications including 3D, deep color, and data rates up to 18 Gbps. Supporting Dolby True HD and DTS-HD Master Audio, these optical cables guarantee lossless audio signal transmissions. This cable series comes with an HDMI Ethernet Channel (HEC) to combine audio, video, and data streams into a cable, enabling Internet connection sharing and IP-based applications over HDMI. Plus, it supports Audio Return Channel (ARC), allowing audio signal to travel to and from the TV and audio system, thereby reducing the number of cables between the television and external Home Theatre System or soundbar.

Engineered to meet the latest trend of integrator-friendly design, the VE7831A optical cables feature pluggable gender and gold-plated connectors. Therefore, the cables are ideal solutions for extending the reach of digital signages in a wide range of settings, such as traffic stations, shopping centers, and hospital facilities.



Features

- HDMI (3D, Deep Color, 4K, HDR, HEC, ARC) ; HDCP 2.2 compliant
- Extends True 4K signals 4096 x 2160 @ 60 Hz (4:4:4) up to 10 m
- Supports HDR
- Supports HDMI Ethernet Channel (HEC) – combines audio, video, and data streams into a cable to simplify the set-up
- Supports Audio Return Channel (ARC) – connects TV and audio system, eliminating the need for an additional cable
- Reduced EMI and RFI for lower noise interference
- Supports multi audio channel – Dolby TrueHD and DTS-HD Master Audio
- Robust cable pulling strength (Max. 10 kg) and compression load resistance (Max. 50 kg)
- Additional power source is available via Micro USB cable for better compatibility
- Gold-plated connectors for reliable transmissions
- Compliant with International Flame Retardant Standards : UL CMP-OF (Plenum)
- Pluggable gender for easy installation
- Plug-and-play

Specifications

Cable Length	10M / 32.8 ft
Cable Type	Cable Type: Hybrid cable with optical fiber and copper wire HDMI Standards: High Speed HDMI Cable
Video Input	

Interfaces	1 x HDMI 19-pin Type-A Male (gold-plated) pluggable connector 1 x HDMI Type-D Male
Video Output	
Interfaces	1 x HDMI 19-pin Type-A Male (gold-plated) pluggable connector 1 x HDMI Type-D Male
Video	
Max. Data Rate	18 Gbps (6 Gbps per Channel)
Max. Pixel Clock	600 MHz (Max.)
Compliance	HDMI (3D, Deep Color, 4K, HDR, HEC, ARC) HDCP 2.2 Color sub-sampling: 4:4:4 / 4:2:2 / 4:2:0 Color Depth: 30 / 36 / 48 bit
Max. Resolutions / Distance	Up to 4096 x 2160 / 3840 x 2160 @ 60Hz (4:4:4) / 10m
Communication	
Signals	TMDS / HDCP 2.2 / EDID / CEC
Audio	
Input	PCM 8-channel, Dolby Digital True HD, DTS-HD Master Audio
Output	PCM 8-channel, Dolby Digital True HD, DTS-HD Master Audio
Conductor	
Construction	7 x Tinned Copper Wire 4 x OM3 Optical Fiber (50/125um)
Jacketed	
Material	UL Plenum (CMP-OF)
Certifications	
Certifications	Safety and Emission: CE / FCC / RoHS2 / UL CMP-OF
Power Consumption	DC5V:0.25W:1BTU/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.
Power (Optional)	Optional power source: Micro USB to USB cable (100cm) 5V, 250mW (max)
Notification	Bend Radius: 20mm (Min.) Connector Pull Strength: Max. 10kg (100N) Compression Load Resistance: Max. 50kg (500N) Shielding & Filling: AL Mylar shielding / Kevlar Filling
Environmental	
Operating Temperature	0°C to 50°C (32°F to 122°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)
Humidity	0 - 85% RH, Non-Condensing
Physical Properties	
Housing	Connector Case: Zinc-Alloy
Weight	0.30 kg (0.66 lb)
Cable Outer Dimension	Cable Outer Diameter: 4.5mm (± 0.2mm)
Carton Lot	10 pcs

Diagram



ATEN International Co., Ltd.

3F., No.125, Sec. 2, Datong Rd., Sijhih District., New Taipei City 221, Taiwan
 Phone: 886-2-8692-6789 Fax: 886-2-8692-6767
 www.aten.com E-mail: marketing@aten.com



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