

# 10M / 20M True 4K HDMI Active Optical Cable

VE7831A / VE7832A

ATEN VE7831A / VE7832A 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 10 and 20 m 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 / VE7832A 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 20 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

## Highlights

True 4K / 4K HDR	The VE7831A / VE7832A are ATEN's premiere True 4K HDMI Active Optical Cables. Without any compression, these cables can extend lossless True 4K signals up to 20 m. Whether designing Pro AV installations for the aviation industry, military, medical, or other applications, ATEN True 4K HDMI Active Optical Cables deliver the ideal solution to make projects successful.
Supports HEC and ARC	Thanks to the support for HEC and ARC, these cables enable the transfer of Internet signal between connected devices while allowing audio signal transmission between the TV and external audio system.
Pluggable Design	With detachable HDMI connectors, the cable can effortlessly run through a conduit and any other tight spaces, making installation much easier.
Gold-plated Connector	To prevent corrosion on the connectors, ATEN VE7831A / VE7832A cables are equipped with gold-plated connectors.
Reduced EMI & RFI	ATEN VE7831A / VE7832A ables reduce the risk of EMI (electromagnetic interference) and RFI (radio-frequency interference), guaranteeing reliable signal transmission.
Better Compatibility	To increase compatibility, an additional power source is available via Micro USB cables from both sources and displays.



### **Specifications**

	VE7831A	VE7832A	
Cable Length	10 m	20 m	
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	Up to 4096 x 2160 / 3840 x 2160 @ 60 Hz (4:4:4)		
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 / 125 um)		
Jacketed			
Material	UL Plenum (CMP-OF)		
Power Consumption	DC 5 V : 0.25 W : 0.05 A		
Power (Optional)	Optional Power Source: Micro USB to USB cable (100 cm) 5 V, 250mW (Max.)		
Certifications			
Certifications	Safety and Emission: CE /	FCC / RoHS2 / UL CMP-OF	
Notification	Bend Radius: 20 mm (Min.) Connector Pull Strength: Max. 10 kg (100 N) Compression Load Resistance: Max. 50 kg (500 N)		
Environmental			
Operating Temperature	0 - 50 °C		
Storage Temperature	-20 - 70 °C		
Humidity	0 - 85 % RH, Non-Condensing		
Physical Properties			
Housing	Connector Case: Zinc-Alloy		
Cable Outer Dimension	Cable Outer Diameter: 4.5 mm (± 0.2 mm)		
Unit weight	0.3 kg 0.55 kg		

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