

# 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<br>Internet signal between connected devices while allowing audio signal transmission<br>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<br>HDMI Standards: High Speed HDMI Cable                               |                         |  |
| Video Input           |  | ,                       |  |
| Interfaces            | 1 x HDMI 19-pin Type-A Male (gold-plated) pluggable connector<br>1 x HDMI Type-D Male  |                         |  |
| Video Output          |  |                         |  |
| Interfaces            | 1 x HDMI 19-pin Type-A Male (gold-plated) pluggable connector<br>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)<br>HDCP 2.2<br>Color sub-sampling: 4:4:4 / 4:2:2 / 4:2:0<br>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<br>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)<br>5 V, 250mW (Max.)  |                         |  |
| Certifications        |  |                         |  |
| Certifications        | Safety and Emission: CE /  | FCC / RoHS2 / UL CMP-OF |  |
| Notification          | Bend Radius: 20 mm (Min.)<br>Connector Pull Strength: Max. 10 kg (100 N)<br>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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