



YDSAOC-32G-DP-AM-HDMI-AM

DP 1.4 Type A to HDMI 2.1 32.4Gbps Active Fiber Optical Extension Cable

Overview

YDSAOC-32G-DP-AM-HDMI-AM is a high-performance **Active Optical Cable (AOC)** that converts and extends video/audio signals from a **DisplayPort 1.4** source to an **HDMI 2.1** display. It supports resolutions up to **8K @ 60Hz** and **4K @ 120Hz** over distances of up to **100 meters (300 feet)** — well beyond the reach of traditional copper cables.



Key Features

- ◆ **High Resolution Support:** Delivers 8K60, 4K120, 4K60, 4K30, 1080p/1080i, and 720p video signals.
- ◆ **High Data Rate:** Provides up to **32.4 Gbps** of bandwidth per the HDMI 2.1 specification.
- ◆ **Hybrid Fiber/Copper Design:** Combines fiber and copper for extremely low signal loss, superior EMI/RFI immunity, and a thinner, lighter, more flexible cable.
- ◆ **Plug-and-Play:** Requires **no external power supply or driver installation**; operates with ultra-low power consumption (**<0.5W per end**).
- ◆ **Zero EMI/RFI Interference:** Practically radiation-free operation for flawless performance in sensitive environments.
- ◆ **Audio/Video Synchronization:** Transmits audio and video simultaneously, supporting mirror and extend display modes.
- ◆ **Enhanced Audio & Visuals:** Supports HDR, BT.2020 colorimetry, 21:9 cinema aspect ratio, and up to **32 audio channels** (1536 kHz sampling); includes PCM 8-Channel, DTS-HD, and Dolby TrueHD.
- ◆ **Broad Compatibility:** Backward compatible with DP 1.2, HDMI 1.4, and HDMI 2.1 devices; supports HDCP, EDID, CEC, and DDC.
- ◆ **Robust Construction:** Zinc alloy connectors with latching design for durability and anti-interference; suitable for pipe wiring and tight-space routing.
- ◆ **Unidirectional Design:** Dedicated source and display connectors for simple, foolproof installation.
- ◆ **Customizable:** Available in lengths up to 100m, with options for custom length, logo, and packaging.

Intended Applications

- ◆ Home entertainment and home theater systems
- ◆ Professional AV, broadcast, and live streaming setups
- ◆ Conference rooms and video conferencing (e.g., Logitech Rally, Yealink MeetingBar, Poly Studio, Bose, Crestron)
- ◆ Digital signage and LED video walls
- ◆ Medical imaging and healthcare equipment
- ◆ Industrial/machine vision and AI inspection systems
- ◆ VR/AR headsets and gaming setups
- ◆ Airplane on-board video, security monitoring, and DVR systems
- ◆ DP docking stations and external storage workflows

Ideal Use Case The cable is best suited for environments requiring **long-distance data transmission without on-site power**, where high reliability is needed in electromagnetically complex settings. Its plug-and-play, all-in-one design eliminates the multiple failure points typical of traditional extender setups, making it an ideal solution for demanding Ultra HD AV applications.

YDSAOC

Conference Rooms & Video Conferencing





ACTIVE OPTICAL CABLES

your best fiber optics partner

Key Specifications

YDSAOC Model Number	YDSAOC-32G-DP-AM-HDMI-AM
Order Part Numbers	YDSAOC-32G-DP-AM-HDMI-AM-1003 YDSAOC-32G-DP-AM-HDMI-AM-50015 YDSAOC-32G-DP-AM-HDMI-AM-100030 YDSAOC-32G-DP-AM-HDMI-AM-150045 YDSAOC-32G-DP-AM-HDMI-AM-200060
Length	1m(3ft), 5m(15ft), 10m(30t), 15m(45ft). 20m(60ft)
Maximum Support Length	up to 100m(300ft)
Maximum Data Speed	up to 32.4Gbps (8.1Gbps per channel)
Full Feature AV Functions	HPD, HDCP, HDR
Maximum Resolutions	8K 60Hz/30Hz, 4K 120Hz/60Hz/30Hz, 1080p/I, 720p
Connector A (Source)	DisplayPort 1.4 Type-A Male
Connector B (Display)	HDMI 2.1 Type-A Male
DisplayPort Protocols	DP1.4 Conversion to HDMI 2.1 ALT Mode
Support Functions	DP: HBR3, DisplayPort 1.4: 32.4 Gbps
Cable Diameter	4.8mm
Cable Jacket Type	PVC
Cable Color	Black
AOC Constructions	Hybrid, 4x Optical Fiber, 5x Copper Wire
Minimum Bending Radius	50mm
Operating Temperature	0°C to 70°C
Storage Temperature	-40°C to 85°C
Installation Direction	One Way Direction. DP1.4 (Source) to HDMI (Display)
Power Connect	No External Power is Required

YDSAOC



DIGITAL SIGNAGE & LED VIDEO WALLS

Powerful Visuals. Seamless Connection.

Deliver stunning 4K/8K content with unmatched clarity and reliability. Our HDMI 2.1 solutions ensure high-performance connectivity for digital signage and LED video wall applications.



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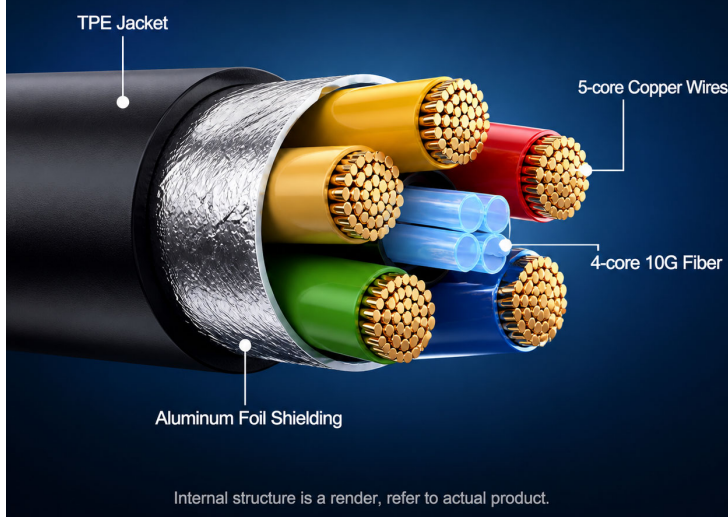
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10G Fiber: Zero Radiation Anti-Interference

Hybrid fiber-copper design for stable, interference-free signals.



Touch Control Pass-Through

Touch-enabled interactive display, not just a secondary screen.



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8K Ultra HD Screen Mirroring

Up to 8K@60Hz, 4K@144Hz/120Hz Resolution



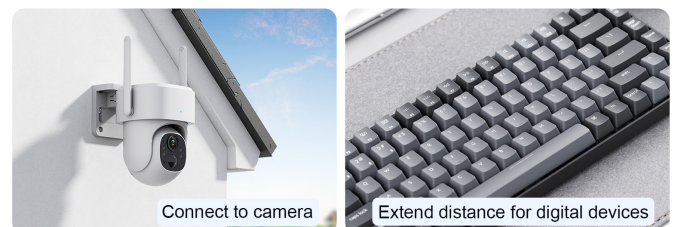
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Photonic

Mature Long-life Laser & Chip

Opto-electronic chip design, near-zero signal loss, reliable long-distance transmission.



Flexible Cable One-piece Design

One-piece molded connector & strain relief for durable, break-resistant cable.



Fiber Optic, Interference-Free

Superior EMI Resistance

PS: Internal structure for rendering only.

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DP 1.4 to HDMI 2.1 Cable

WIDE RANGE OF APPLICATIONS



1 Home entertainment and home theater systems



2 Professional AV, broadcast, and live streaming setups



3 Conference rooms and video conferencing



4 Digital signage and LED video walls



5 Medical imaging and healthcare equipment



6 Industrial/machine vision and AI inspection systems



7 VR/AR headsets and gaming setups



8 Airplane on-board video, security monitoring, and DVR systems



9 DP docking stations and external storage workflows.



8K
60Hz
8K Ultra HD
Up to 8K@60Hz
and 4K@120Hz



48
Gbps
High Bandwidth
Up to 48Gbps
for ultra-smooth
performance



HDR
Dynamic HDR
Vivid colors and
enhanced contrast



VRR
VRR & ALLM
Lag-free gaming
with variable
refresh rate



Durable Build
Premium materials
for reliable
performance



Plug & Play
No drivers required,
easy and convenient
to use



☞ From Source to Stunning Display | ☞ One Cable. Limitless Possibilities.

YDSAOC

DP DOCKING STATION & EXTERNAL STORAGE WORKFLOW

Connect • Expand • Transfer • Display



DP 1.4 to HDMI 2.1 Cable

- DP 1.4 to HDMI 2.1** High Performance Unidirectional Cable
- 8K 60Hz** 8K@60Hz / 4K@120Hz Ultra HD Display Support
- Premium Build** Nylon Braided Cable
- Plug & Play** No Drivers Required



Home Entertainment System

Home Theater Setup

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YDSAOC-32G-DP-AM-HDMI-AM

DisplayPort 1.4 to HDMI 2.1 Active Optical Cable



PRODUCT OVERVIEW

High-performance Active Optical Cable (AOC) that converts and extends video/audio signals from DisplayPort 1.4 source to HDMI 2.1 display.

Supports resolutions up to 8K @ 60Hz and 4K @ 120Hz over distances up to 100 meters (300 feet).

KEY FEATURES



High Resolution Support:

8K60, 4K120, 4K60, 4K30, 1080p/1080i, 720p



High Data Rate:

32.4 Gbps bandwidth (HDMI 2.1)



Hybrid Fiber/Copper Design:

Low signal loss, superior EMI/RFI immunity



Plug-and-Play:

No external power or drivers needed (<0.5W per end)



Zero EMI/RFI Interference:

Radiation-free operation



Enhanced Audio & Visuals:

HDR, 32 audio channels, PCM 8-Channel, DTS-HD, Dolby TrueHD

TECHNICAL HIGHLIGHTS



100 Meters Range

Long distance capability for flexible installations



32.4 Gbps

High bandwidth for ultra-high performance



Plug & Play

Easy installation without external power or drivers

APPLICATIONS



HOME ENTERTAINMENT & THEATER



Perfect for 8K home theaters, gaming setups, and premium entertainment systems.



PROFESSIONAL AV & BROADCASTING



Ideal for studio, live events, digital signage, and professional AV installations.



MEDICAL & HEALTHCARE IMAGING



Supports high-resolution medical imaging and diagnostic display applications.

High Performance • Long Distance • Zero Interference • Future Ready

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1. DisplayPort 1.4



2. Mini DisplayPort



3. HDMI 2.1



4. Mini HDMI (Type C)



5. Micro HDMI (Type D)



6. DVI-D



7. VGA



8. USB-C



9. Thunderbolt 4
(USB-C form factor,
40 Gbps) ⚡



10. Toslink



Row 1 - Legacy/USB 2.0 Connectors



USB Type A



USB Type B



USB Mini A



USB Mini B



USB Micro A



USB Micro B

Row 2 - Modern Connectors



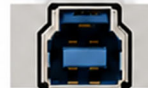
USB Type C



USB Micro B 3.0



USB 3.0 Type A



USB 3.0 Type B



USB 3.0 Micro B

Applications of Active Optical Cable (AOC)

High-speed, long-distance connectivity across diverse industries.



1 Traffic Monitoring

Uninterrupted connectivity for real-time traffic data, safety and efficiency.



2 Security & Surveillance

HD/4K/8K video support, effective monitoring without downtime.



3 Control Rooms

Ultra-high bandwidth for instantaneous data and video switching.



4 Healthcare

EMI/RFI immunity ensures reliable transmission in medical environments.



5 Education

Connectivity in large lecture halls, overcoming copper cable limits.



6 Digital Signage

High-quality displays with consistent transmission of information.



7 Conference Rooms

Plug-and-play design makes connectivity easy for presenters.



8 Government Campuses

Thinner and more flexible than copper, reducing cable clutter.



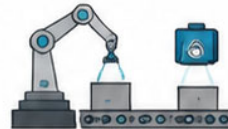
9 USB4 Applications

Extends reach while maintaining power and signal integrity.



10 Audio Visual Entertainment

Superior signal quality for home theaters and gaming.



11 Industrial & Machine Vision

Durable, high-performance for automated inspection.



12 Broadcast Systems

High bandwidth and low latency for seamless content delivery.



13 Simulation Systems

Real-time transmission for realistic training.



14 Data Centers & HPC

Pivotal for high-performance computing and extensive configurations.



15 Consumer Electronics & IT

High-res displays, VR devices, and high-bandwidth apps.



16 Aerospace, Defense & Automotive

High-speed, robust connectivity for critical sectors.

Core Benefits



Reliability



Long Distance



EMI Immunity



High Bandwidth



Flexible Installation



Power Delivery



Plug-and-Play