18Gbps　Detachable HDMI Armored Hybrid Fiber Cable
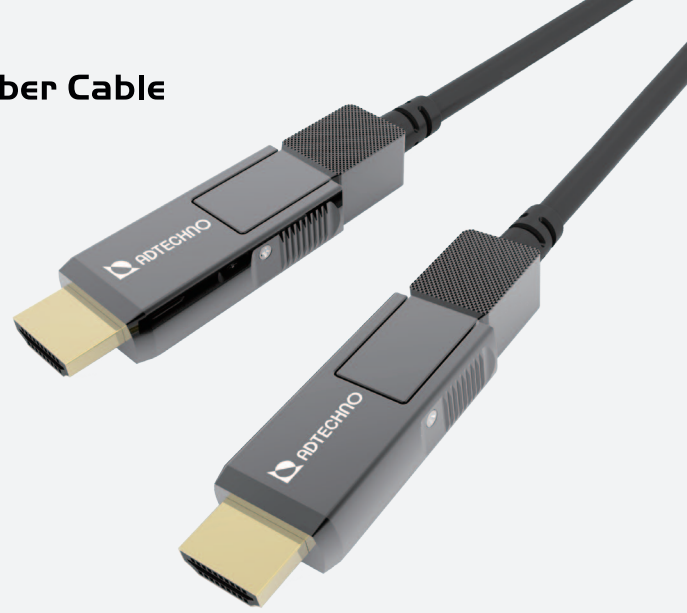
AHG-xxxM

・Support max. 4K UHD@60 4:4:4（18Gbps）
・Support HDCP (2.2 / 1.4) / HDR / CEC / ARC
・Unique three-layer structure withstand crush resistance 2000N / tensile
　resistance 800 N
・Detachable connector
・Metal housing with excellent electromagnetic compatibility
・Max. 100 meters transmission
・Equipped with USB power supply port for power insufficient condition

Model No: AHG-xxM
("xxx" will be replaced with cable length in meters)

Introduction

This product is an active HDMI cable that uses a glass optical fiber cable with stainless steel and Kevlar ® coated on the cable. It can transmit signals up to 4K UHD@60 4:4:4 (maximum transmission band 18Gbps). It supports HDCP, HDR, CEC and also ARC transmission up to 50m, and can be widely used in critical long-distance transmission environments ranging from home theater environment to professional broadcasting application.

The cable coating has a three-layer structure, which consists of spiral stainless steel, military grade Kevlar® used for bulletproof vests, and TPU, which covers the optical fiber and copper wire in that order. With this unique structure, it has excellent crushing strength that can withstand a pressure of up to 2000N (203.9kgf) and high tensile strength of up to 800N (81.6kgf), yet it has the flexibility to withstand an allowable bending radius of 10mm. It maintains signals and functions without loss in the environment where the cable is often stepped on or pulled.

The connection terminal is a detachable HDMI Type A connector. After detaching Type A connector, the cable is with an HDMI Type D connector. When detaching HDMI Type A connector, the maximum size of the Type D connector is 14.6 mm, which is an ultra-fine specification, designed for easy installation even in places where difficult to install a normal HDMI cable, etc. like CD/PF pipes with an inside diameter of 22 mm.
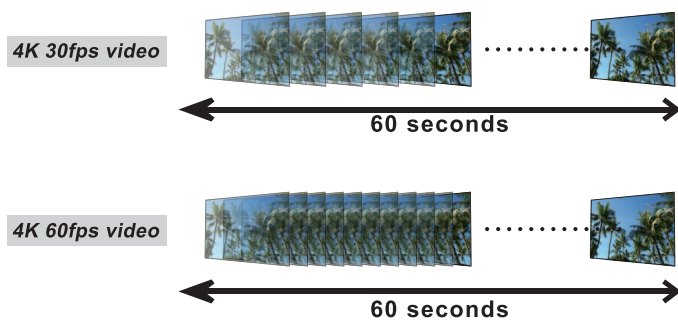
The connector with the metal housing has excellent electromagnetic compatibility, less interfered from external noise, and minimizes noise generation from the main unit.

Signals can be transmitted up to 100 m without power supply, but in case the power of connected equipment is unstable, Micro USB ports for power supply can be connected at both ends of the cable.

While having the characteristics of optical fiber cable such as long-distance transmission (up to 100 m) and electromagnetic compatibility, this product has also high strength (crush resistance 2000 N/tensile resistance 800 N) and flexibility (allowable bending radius 10 mm). It can be used in various situations such as live events, conference, broadcasting sites, FA devices, embedded devices, server rooms, medical sites, and video production studios where it needs to avoid connection errors due to cable breaks.

Max 4K UHD@60 4:4:4（18Gbps）

Since the maximum transmission bandwidth is 18 Gbps, 4K UHD@60 4:4:4 8 bit signal can be transmitted.

4K 30fps video

60 seconds

4K 60fps video

60 seconds

**Smooth video playback of high data rate
4K videos at 60 frames per second**

HDCP(2.2/1.4)/HDR/CEC/ARC support

In addition to supporting HDCP (2.2/1.4), HDR, CEC, it also supports ARC up to 50 m.
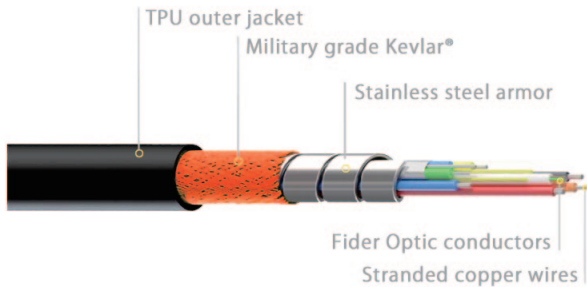
Normal output

HDR output

High strength and high flexibility due to unique 3-layer coasting structure
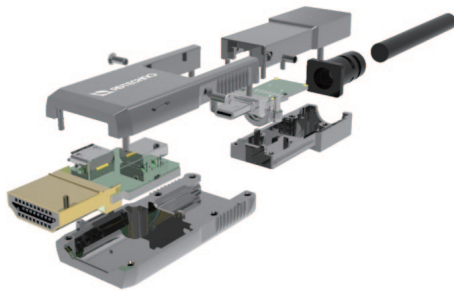
The cable has a three-layer coasting structure. The optical fiber and copper wire are coated by spiral stainless steel (high strength/high pressure resistance), Kevlar® (high strength/high heat resistance), and TPU (flexibility/wear resistance/tensile resistance) in that order. With this unique structure, it has excellent crush strength that can withstand a pressure of up to 2000N (203.9kgf) for a short time and high tensile strength up to 800N (81.6kgf). It can withstand an allowable bending radius of 10mm momentarily.

TPU outer jacket
Military grade Kevlar®
Stainless steel armor
Fider Optic conductors
Stranded copper wires

3-layer structure of spiral stainless steel, military grade Kevlar® used for bulletproof vest, flexible and stretchable TPU.

Excellent electromagnetic compatibility

The connector with the metal housing has excellent electromagnetic compatibility, less interfered from external noise, and minimizes noise generation from the signal source.

Metal housing with excellent electromagnetic compatibility

Up to 100m video transmission・Equipped with USB power supply port for power insufficient condition

Signals can be transmitted up to 100 m without power supply, but in case the power of connected equipment is unstable, Micro USB ports for power supply can be connected at both ends of the terminal.
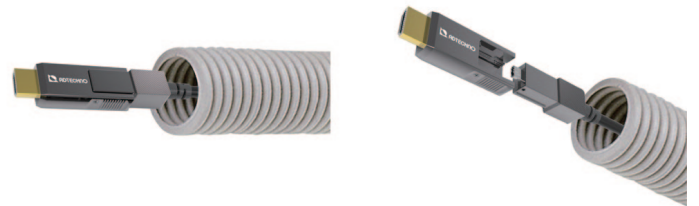

Equipped with power supply ports on both transmitting and receiving sides

Detachable Connector

The connection terminal is a detachable HDMI Type A connector. After detaching Type A connector, the cable is with an HDMI Type D connector. When detaching HDMI Type A connector, the maximum size of the Type D connector is 14.6 mm, which is an ultra-fine specification, designed for easy installation in places where difficult to install a normal HDMI cable, etc. like CD/PF pipes with an inside diameter of 22 mm.

HDMI Type D connector after removing Type A connector

Designed for easy piping

Specifications

Model No.	AHG-xxM（xx means length of cable in meter）
Cable Length (m)	10 / 15 / 20 / 30 / 40 / 50 / 100
Connector　Source	HDMI Type A / HDMI Type D（Detached）
Connector　Display	HDMI Type A / HDMI Type D（Detached）
With Type A	20.5mm（with HDMI Type A connector）
With Type D only	14.6mm（HDMI Type D connector）
Cable Type	Active：GOF4、Copper 7
Max Speed	18Gbps
HDCP	Support（2.2/ 1.4）
HDR	Yes
CEC	Yes
ARC	Yes
External Power	Micro USB
Max power consumption	0.25W
Color	Cable：Black / Connector：Gray
Cable Coating	Three Layer（Stainless Steel / Kevlar® / TPU）
Cable Diameter	5.8mm±0.2mm
Allowable Bending Radius	Long Term：20mm/Instant：10mm
Max. Crush Resistance	Long Term：1000N(102kgf)/Instant：2000N(203.9kgf)
Max. Tensile	Long Term：400N(40.8kgf)/ Instant：800N(81.6kgf)
Cable Direction	Yes
Max Resolution	4KUHD@60 4:4:48bit
Operation/Storage Temp	0°C ～ 50°C / -40°C ～ 70°C
Storage/Operation Humidity	10 ～ 80%
Accessory	HDMI Type A x 2 / USB power cable（Micro B↔A）x 2
Warranty	12 months
Certificate	FCC / CE / RoHS

※1) Support ARC for 50m
※2) The numbers indicate the characteristics of the cable but do not guarantee performance.
※3) Pipering line with Φ20mm or more is recommended.
※4) It shows the characteristics of the metal housing but does not guarantee noise-free.
※5) It provides auxiliary power in the event of a power shortage or instability of the connected device. Operation with all devices is not guaranteed.
※6) Appearance and specifications are subject to change without notice.
※7) Operation with all devices is not guaranteed.
※8) Kevlar ® is a trademark or registered trademark of an affiliate of DuPont, Inc. in the United States.

The latest information and the detailed product specifications are available at http://www.ad-techno.com/en/