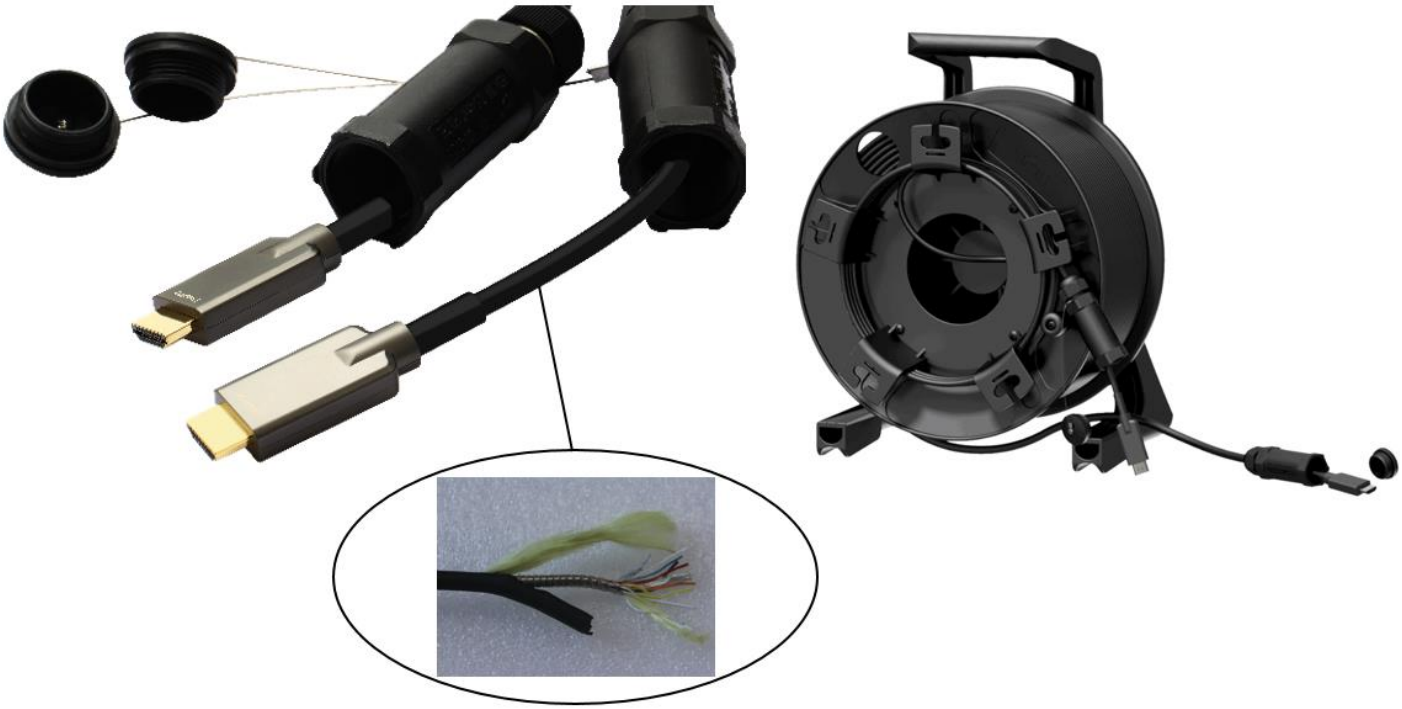
Premium Armored Optic HDMI 2.1 Cables



Descriptions

Our armored HDMI Active Hybrid Cable is the most competitive long reach HDMI interconnection solution on the market. It supports HDMI Data Rate 12Gbps per channel ,total 48Gbps with light weight, flexible and ultra-small long-term bending radius (45mm) hybrid cable. With our advanced optical engine embedded. This HDMI Hybrid Cable provides full HDMI signal integrity, support up to 100m maximum length, plug and play. No external power required.

Key Features

- Up to 100m Maximum Length; (Custom Length Available)
- Low Power Consumption: 250mW (max);
- Plug and Play;
- Support HDCP1.4/2.2;
- Self-detecting function for EDID information;
- No loss of signal – delivering crystal clear digital images instantly;

Armored HDMI 2.1 A-A AOC

- Supports computer resolutions 8K@60Hz;
- Hybrid optical cable with fiber and copper wire;
- Crush Resistance: Long term100kg; Short term 200kg.

Applications

- Digital Signage
- LED signboards in streets and in stadiums
- Medical Imaging Equipment
- Airplane On-board Video System
- Home Theater
- Blue-ray, 3D video, Projector, Set-up box, DVR, Game Consoles and Computer
- TV Broadcast Station
- Conference Room Video Equipment
- Security systems

Absolute Maximum Rating

Parameter	Symbol	Min	Max	Unit
Power Supply Voltage	VCC	4.5	5.5	V
Operating Temperature	Top	0	50	°C
Storage Temperature	Ts	-40	70	°C
Relative Humidity	Hs	10	80	%RH

Recommended Operating Conditions

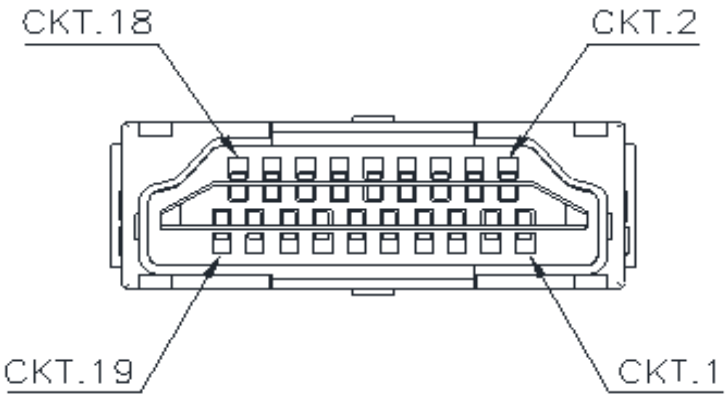
Parameter	Symbol	Min	Typical	Max	Unit
Power Supply Voltage	VCC	4.75	5.0	5.25	V
Operating Temperature	Top	-40		80	°C

Specifications

Item	Description	
Units	Transmitter (Source)	Receiver (Sink)
HDCP & DDC	HDCP 2.2 Fully Support bi-directional EDID and HDCP communication	
Video Bandwidth	12 Gbps/x4Channel	

Supported Resolution & Distance	480p, 720p, 1080i and 1080p deep color, 4Kp50/60/100/120 and 8Kp50/60 up to 100m	
O/E Converter	4 channel 850 nm VCSEL array	4 CH GaAs PD array
Connector Type	HDMI type A	
Cable Type	Armored Hybrid type with OM3 fiber and copper wire	
Cable Length	15m/20m/30m/40m/50m/60m/70m/80m/90m/100m (with +/-30cm tolerance) Custom length available.	
Cable Outer Diameter	5.8mm	
Jacket Outer Material	TPU(Custom)	
Cable Weight TBD	Cable Weight TBD	
Cable Color TBD	Cable Color TBD	
Differential Input	100 ohm (typ)	
Power Consumption	250mW (max)	
Power Supply	Non external power required	

HDMI Type A Pin Assignment

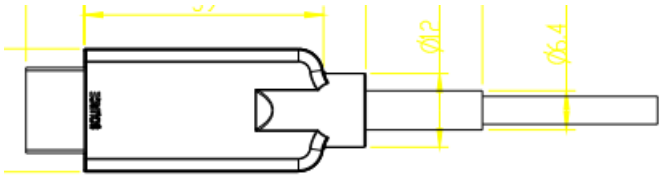


HDMI Type A Connector Pin Assignment

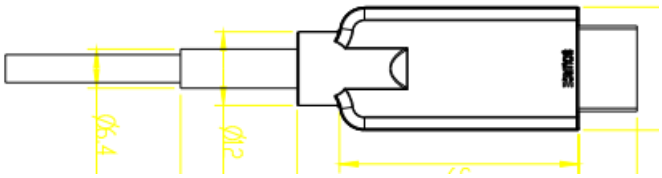
PIN	Function	PIN	Function
1	T.M.D.S. Data 2+	11	TMDS Clock Shield

2	T.M.D.S. Data 2 Shield	12	TMDS Clock-
3	T.M.D.S. Data 2-	13	CEC
4	T.M.D.S. Data 1+	14	Utility
5	T.M.D.S. Data 1 Shield	15	SCL
6	T.M.D.S. Data 1-	16	SDA
7	T.M.D.S. Data 0+	17	DDC/CEC Ground
8	T.M.D.S. Data 2 Shield	18	+5V Power
9	T.M.D.S. Data 0-	19	Hot Plug Detect
10	TMDS Clock+		

Installation

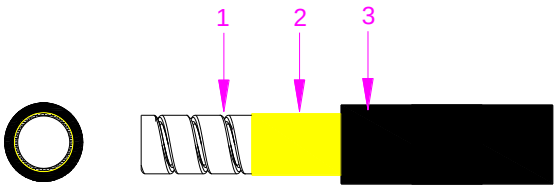


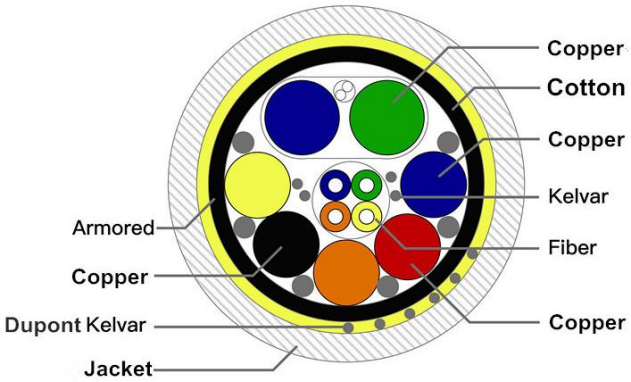
To Source, ex. DVD, PC



To Sink, ex. TV

Hybrid Cable Profile





Cable Sturcture		Material/Model	Specifications
1	Metal Tube	200CU Stainless steel	4.4±0.1
2	To strengthen the unit	Dupont Kevlar	1670D*4
3	Jacket	TPU	0D 5.8±0.2 mm

Tensile(N)		Crush Resistance(N/100mm)		Bending Radius(mm)		Temperature(℃)
Long Term	Short Term	Long Term	Short Term	Dynamic	Static	-40~+80
400	800	1000	2000	10D	20D	