

HDMI 2.0 Optical Cables (No External Power)

✧ Description

SIN YU Technology HDMI 2.0 active optical cables generate high quality digital video signals for connections between HDMI source- and sink-devices. They support 4k60Hz with YCbCr 4:4:4 or RGB color formats.

The SIN YU's HDMI 2.0 AOCs are compact hybrid cables comprising multi-mode glass fibers for the TMDS signals and copper wires for the low frequency EDID signals. They are fully terminated with electro-optical and opto-electrical HDMI plug ends and are fully compliant with the HDMI 2.0 specifications.



✧ Features

- Support HDMI link length up to 30 m
- Support 4K60Hz @ RGB, 8-bit YCbCr 444 and 12-bit YCbCr 422
- Without external power
- High ESD protection at TMDS inputs: 8 kV (HBM)
- Support ARC up to 10 m

✧ Applications

- Digital signage
- Surveillance
- Home theater
- Game console
- Projectors and displays for conference room, auditorium, medical imaging and stadium

✧ Function Description

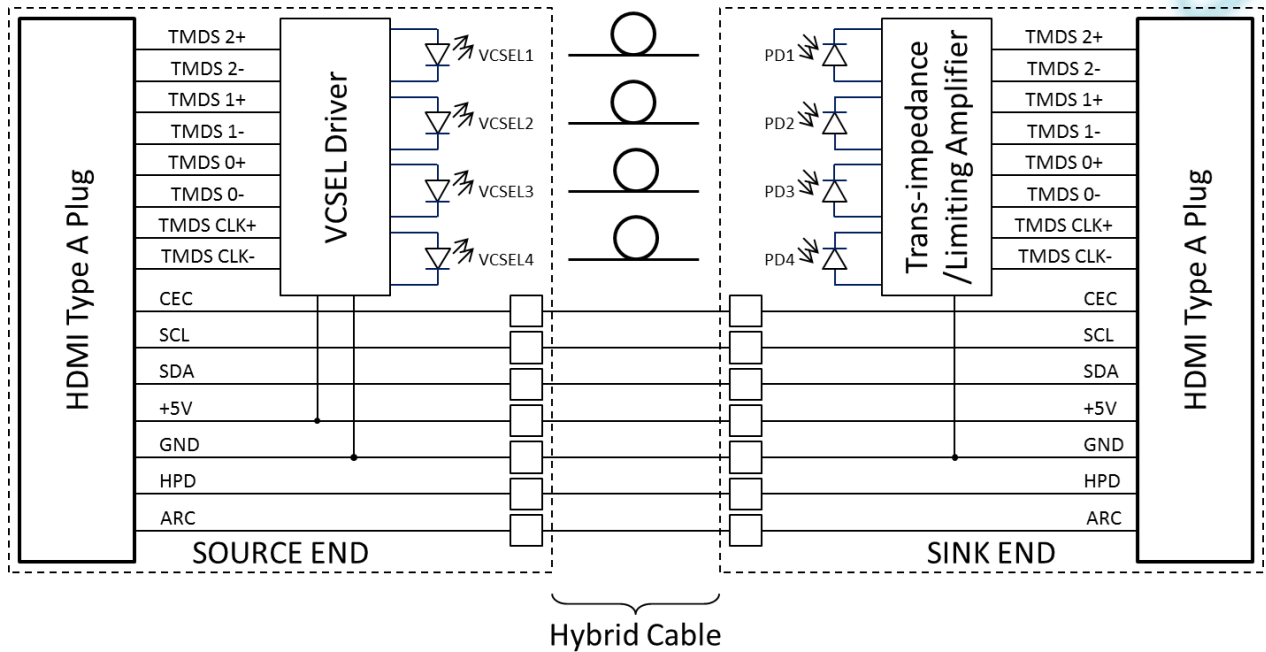


Figure 1. Complete HDMI AOC assembly

✧ Optical and Electrical Characteristics

Parameter	Min	Typ	Max	Unit
Optical wavelength		850		nm
Bit Rate (each channel)		6		Gbps
Inter-pair skew			0.2	ns
Intra-pair skew			30	ps
Differential input/output impedance	80		120	Ω
Supply voltage	4.8	5.0	5.3	V
Supply current			112	mA

✧ Hybrid Cable Specifications

Parameter	Specification	Notes
Minimum Cable Bending Radius	10 mm	
Cable Diameter	3.7 mm	
Cable Jacket	PVC	Other types can be available upon request.
Cable Length Tolerance	+30/-0 cm	
Optical fiber	50/125 um OM2	4 channels

✧ Environmental Test

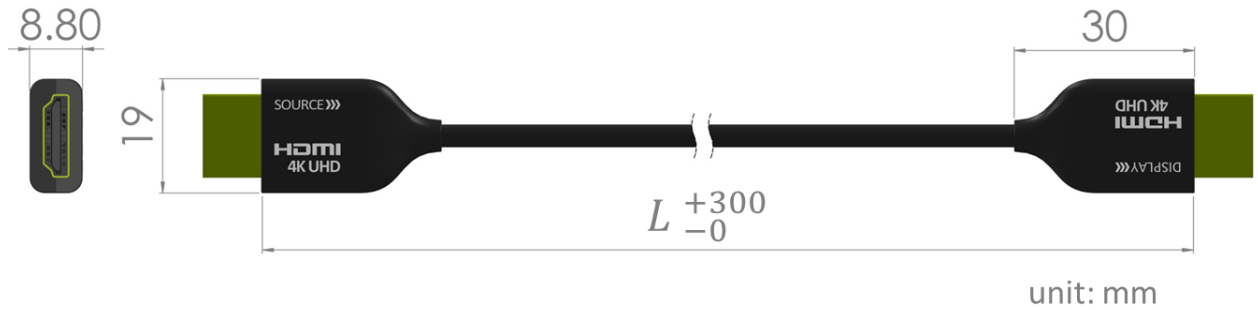
Item	Condition
High Temperature Storage	Non-powered, 70°C, 96 hours
Damp Heat	Non-powered, 85°C, 85%RH, 96 hours
High Temperature Operation	Powered, 60°C, 96 hours

✧ Environment-Related Substances

Substances	Limit
Cd	< 100 ppm
Hg	< 1000 ppm
Cr ⁶⁺	< 1000 ppm
PBDE	< 1000 ppm
PBB	< 1000 ppm
Pb	< 1000 ppm

* Compliant with EU RoHS (2011/65/EU)

✧ Mechanical Specifications



$$L \leq 30 \text{ m}$$

✧ Packing

