48Gbps 8K/60 HDR 4:4:4 Active Optical HDMI Cable | eARC, CEC, ALLM & VRR | ISF Certified (10m/33ft | 15m/49ft)

CAB-HAOC-FRL-10 | CAB-HAOC-FRL-15

WyreStorm

Specification Sheet

HDMI connection from Source Device

HDMI connection to Display Device

WyreStorm - Powerful. Reliable. Simple.

Introduction

The WyreStorm HAOC is a next generation HDMI cable designed for the next generation of 8K and 4K HDR content. Now established as the most powerful form of HDMI extension, WyreStorm active optical cables offer the best of both worlds: pixel-perfect long distance transmission of content and native HDMI communication, thanks to their ability to be a passive communication technology compared to HDBaseT extenders that often terminate the HDMI signal prior to transmission. Looking ahead to the next generation of content crossing into the HDMI2.1 specification, WyreStorm FRL hybrid optical HDMI cables have been designed ready for both content available now and that of the future.

8K and high framerate 4K HDR up to 48Gbps and new HDR standards such as SL-HDR1 and PQ are supported using the latest optical transmission technology. Additionally they offer a unique feature set in both delivering uncompressed HDMI content and compatibility with emerging HDMI technologies such as ALLM (Auto Low Latency Mode) & VRR (Variable Refresh Rate).
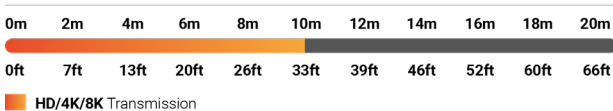
Key Features

- Uncompressed optical transmission of HDMI content up to 48Gbps:
    - 2K (2560 x 1440p) 240Hz
    - 4K (4096 x 2160p) 144Hz
    - 5K (5120 x 2880p) 60Hz
    - 8K (7680 x 4320p) 60Hz
    - Timings listed are quoted as 4:4:4 8-bit
- Compatible with all current and emerging HDR standards:
    - HLG (Hybrid Log Gamma)
    - HDR-10 and HDR-10+
    - Dolby Vision
    - PQ (Perceptual Quantizer)
    - SL-HDR-1
- Ready for future HDCP 2.3 content encryption
- Compatible with new eARC HD audio standard for on-demand content from smart TV's

- Supports HDMI2.1 FRL (Fixed Rate Link) 16/18b encoding and DSC (Display Stream Compression)
- True native HDMI communication ensures CEC and audio return communication between compatible devices
- Supports new HDMI2.1 features such as ALLM (Auto Low Latency Mode) and VRR (Variable Refresh Rate)
- Perfect for use in environments with excessive EM or RF interference
- Kevlar protected communication cores
- High quality aluminium construction with low-profile 20mm/0.79" TX head
- Supplied coiled on cardboard spool in box, with RX head out first.
- No single use plastic included* #SUPFree
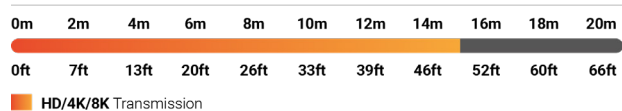- Also available in 15m/49ft length

In the Box

1x CAB-HAOC-FRL-10 or CAB-HAOC-FRL-15 Active Optical HDMI Cable
2x Reusable Cable Ties
1x Quickstart Guide

Optical HDMI Cable Performance Guide

0m	2m	4m	6m	8m	10m	12m	14m	16m	18m	20m
0ft	7ft	13ft	20ft	26ft	33ft	39ft	46ft	52ft	60ft	66ft

■ **HD/4K/8K** Transmission

Optical HDMI Cable Performance Guide

0m	2m	4m	6m	8m	10m	12m	14m	16m	18m	20m
0ft	7ft	13ft	20ft	26ft	33ft	39ft	46ft	52ft	60ft	66ft

■ **HD/4K/8K** Transmission

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support@wyrestorm.com

Specifications

Transmission	
Transmission Encoding	Uncompressed AOC (with DSC support between Source-Display when required)
End to End Latency	10µs
Maximum Transmission Bit Rate	48Gbps (4-core, 12Gbps per lane)

Video	
HDMI	(v2.0b) TMDS | 600MHz Maximum | (v2.1) FRL (Fixed Rate Link) | 16b/18b encoding DSC (Display Stream Compression) Supported
Input	1x HDMI: 19-pin type A Male
Output	1x HDMI: 19-pin type A Male
Maximum Data Rate	42.6 Gbps

		CAB-HAOC-FRL-10	CAB-HAOC-FRL-15
Supported Video Resolutions*	1920 x 1080p @240Hz 2560 x 1440p @240Hz 3840 x 2160p @144Hz 5120 x 2880p @60Hz 7680 x 4320p @60Hz	10m/33ft	15m/49ft
Supported Standards	DCI | Static HDR | HDR10+ | Dolby Vision | HLG | SL-HDR1 | PQ | BT.2020 | BT.2100		

Audio	
Audio Formats	2ch PCM | Multichannel LPCM | DTS-X | Dolby Atmos
Maximum Sampling Rate	192KHz
Maximum Audio Channels	32
Enhanced Audio Return Channel (eARC)	Supported

Communication and Control	
HDCP	Pass-through, 2.3 Supported
EDID	Pass-through, RX>TX
Ethernet	100Mbps Supported
Consumer Electronics Control (CEC)	Bidirectional Supported
Auto Low Latency Mode (ALLM)	Supported
Variable Refresh Rate (VRR)	Supported

Installation Restrictions	
Max Bend Radius	2cm/0.78in
Max Pull Tension	15kg/33lbs
Orientation	Uni-directional - Observe signal flow direction prior to installation

Power	
Power Supply	Passive 4.5v~5.5v VCC (From Connected Source)
Max Power Consumption	250mW

Environmental	
Operating Temperature	14°F ~ 122°F (-10°C ~ 50°C) | 10% ~ 90%, non-condensing
Storage Temperature	-4°F to ~ 140°F (-20°C ~ +60°C) | 10% ~ 90%, non-condensing
Maximum BTU	0.85 BTU/hr
Jacket Material	PVC

Dimensions and Weight (Connector Housing)	
Height	9mm/0.36in
Width	19.8mm/0.78in
Depth	39.5mm/1.56in
Weight	NA
Cable Length (Connector to Connector)	CAB-HAOC-FRL-10: 10m/33ft CAB-HAOC-FRL-15: 15m/49ft

Regulatory	
Safety and Emission	CE | FCC | CL3 | RoHS | EAC

Note: WyreStorm reserves the right to change product specification, appearance or dimensions of this product at any time without prior notice.

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Right Product for the Right Application.

Source Connection Label: **TX SOURCE** Color: Gray ▬

Display Connection Label: **TX DISPLAY** Color: Gray ▬

Personal Computer

Media Player

CAB-HAOC-FRL-10: 10m
CAB-HAOC-FRL-15: 15m

8K
48GBPS

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