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iTrans DH-F300

DP/HDMI™ 4K60 Fiber Extender

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Thank you for purchasing this product

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.

Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lighting strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

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1. Introduction

This combo DP/HDMI™ Extender can extend HDMI™/DP signal up to 10km over a single-mode fiber optic cable. It allows for either HDMI™ or DisplayPort connection on input and output ports, for flexible installation and mixed display configurations between both ends. Video resolution is up to 4K2K@ 50/60Hz RGB 4:4:4. This product has the advantages of strong anti-interference, high safety performance,small size and light weight, and has incomparable advantages in long-distance transmission.

2. Features

☆ DisplayPort/HDMI™ combo connector supports both DisplayPort and HDMI™ video interfaces

☆ Compliant with HDCP 2.3, DisplayPort 1.4 ALT Mode

☆ Video bandwidth 8.1/5.4/2.7/1.62Gbps (DP) and 18Gbps (HDMI™)

☆ Video resolution is up to 4K@60

☆ Support any VESA standard resolution transmission

☆ Automatic recognition of DP/HDMI™ on input and output ports

☆ Four conversion of DP/HDMI™ are supported: DP to DP, DP to HDMI™, HDMI™ to DP, HDMI™ to HDMI™

☆ Transmission distance up to 10km over a single-mode fiber optic cable
 * Multi-mode fiber is supported in SFP modules. The distance over OM4 is up to 300m

☆ Support LPCM 7.1CH, Dolby 5.1,Dolby TrueHD, Dolby Atmos and DTS-HD Master, DTS:X Audio

☆ HDR10, HDR10+, Dolby Vision, HLG pass-through

☆ EDID transmission from Receiver to Transmitter

☆ Compact design for easy and flexible installation

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3. Package Contents

For Transmitter and Receiver:

① 1× 4K60 Combo DP/HDMI™ over Fiber Extender (Transmitter)
② 1× 4K60 Combo DP/HDMI™ over Fiber Extender (Receiver)
③ 2× 5V/1A Power Adapter
④ 1× User Manual

For Transmitter Only:

① 1× 4K60 Combo DP/HDMI™ over Fiber Extender (Transmitter)
② 1× 5V/1A Power Adapter
③ 1× User Manual

For Receiver Only:

① 1× 4K60 Combo DP/HDMI™ over Fiber Extender (Receiver)
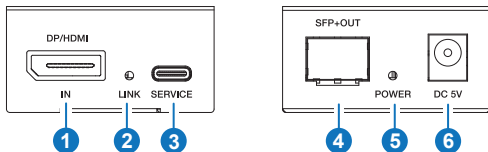② 1× 5V/1A Power Adapter
③ 1× User Manual

4. Specifications

Technical	
HDMI™ Compliance	HDMI™ 2.0b
DP Compliance	DisplayPort 1.4a ALT Mode
HDCP Compliance	HDCP 2.2
Video Bandwidth	18Gbps (HDMI™) and 8.1/5.4/2.7/1.62Gbps (DP)
Color Space	RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0
Color Depth	8/10/12-bit
HDR	HDR10, HDR10+, Dolby Vision, HLG
Fiber Optic Module	10G SFP+ module

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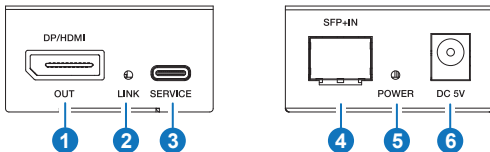|	
Video Resolution (Input & Output)	480i60, 576i50, 480p60, 576p50, 720p50/60, 1080i50/60, 1080p24/25/30/50/60, 4K2K 24/25/30, 4K2K50/60 4:2:0, 4K2K50/60 4:4:4; 640x480@60, 1024x768@60, 1280x768@60, 1280x800@60, 1280x1024@60, 1360x768@60, 1440x900@60, 1680x1050@60, 1920x1200@60RB
Audio Format	LPCM, Dolby Digital/Plus/EX, Dolby True HD, Dolby Atmos, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio, DTS:X
Transmission Distance	Up to 10km over single-mode LC fiber optic cable; Up to 300m over multi-mode OM4 LC fiber optic cable
ESD Protection	IEC 61000-4-2: ±8kV (Air-gap discharge) & ±4kV (Contact discharge)
Connection	
Transmitter	Input:　1× IN [DP/HDMI™ combo connector] Output: 1× SFP+OUT [LC female] Control: 1× SERVICE [USB-C, update port]
Receiver	Input:　1× OUT [DP/HDMI™ combo connector] Output: 1× SFP+IN [LC female] Control: 1× SERVICE [USB-C, update port]
Mechanical	
Housing	Metal Enclosure
Color	Black
Dimensions	TX/RX: 80.8mm [W] × 49mm [D] × 25mm [H]
Weight	TX/RX: 112g
Power Supply	DC 5V/1A
Power Consumption	TX：2.7W (Max); RX: 2.4W (Max)
Operating Temperature	32°F ~ 104°F / 0°C ~ 40°C
Storage Temperature	-4°F ~ 140°F / -20°C ~ 60°C
Operating Humidity	20%~80% relative humidity, non-condensing
Storage Humidity	10%~90% relative humidity, non-condensing

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5. Operation Controls and Functions

5.1 Transmitter Panel

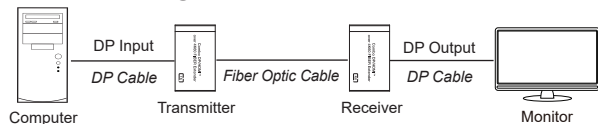| No.	Name	Function Description
1	DP/HDMI IN	DP/HDMI signal input port, connected to a source device such as computer.
2	LINK LED	The green LED will light up, when the transmitter and the receiver are connected and linked.
3	SERVICE	USB-C port, used for firmware update.
4	SFP+OUT	Fiber optic SFP port, connected to the SFP+IN port on the receiver via LC fiber optic cable.
5	Power LED	The green LED lights up, when the transmitter is powered on.
6	DC 5V	Connects to the included 5V/1A power adapter.

5.2 Receiver Panel

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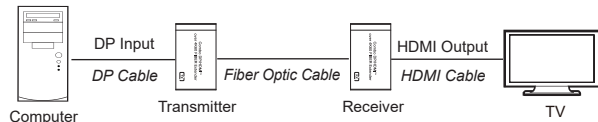| No.	Name	Function Description
1	DP/HDMI OUT	DP/HDMI signal output port, connected to a display device such as monitor.
2	LINK LED	The green LED will light up, when the transmitter and the receiver are connected and linked.
3	SERVICE	USB-C port, used for firmware update.
4	SFP+IN	Fiber optic SFP port, connected to the SFP+OUT port on the transmitter via LC fiber optic cable.
5	Power LED	The green LED lights up, when the receiver is powered on.
6	DC 5V	Connects to the included 5V/1A power adapter.

6. DisplayPort/HDMI Combo Connector

DisplayPort/HDMI combo connector supports both DisplayPort and HDMI video interfaces, designed for flexible installation and mixed/matched display configurations.

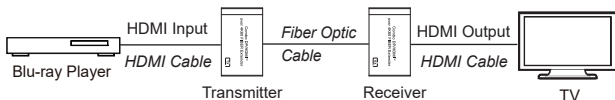Four conversion of DP/HDMI are supported with various resolutions:
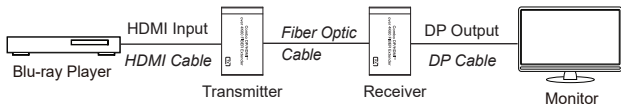
DP to DP (Up to 4K@60Hz):

DP to HDMI (Up to 4K@60Hz):

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HDMI to HDMI (Up to 4K@60Hz):

Blu-ray Player — HDMI Cable — HDMI Input — Transmitter — *Fiber Optic Cable* — Receiver — HDMI Output — HDMI Cable — TV

HDMI to DP (Up to 4K@60Hz):

Blu-ray Player — HDMI Cable — HDMI Input — Transmitter — *Fiber Optic Cable* — Receiver — DP Output — DP Cable — Monitor

Note:

When the DP/HDMI port is used as HDMI input or output channel, please plug in the HDMI cable on the right side of the port (as shown below).
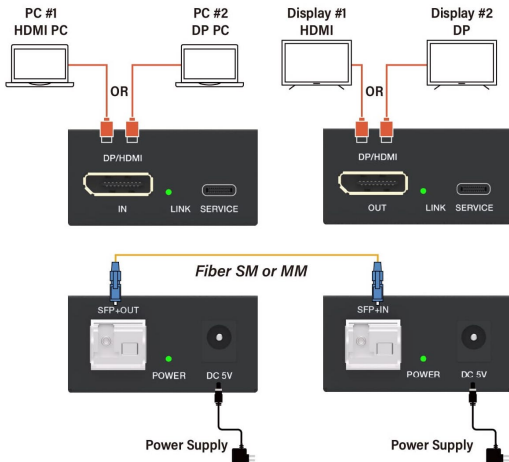

VS.

Automatic Recognition:

DP/HDMI signal can be recognized automatically, when the DP/HDMI source or display device is connected to the input or output port.
For example, if a DP source device is connected to the input port, and the DP signal will be recognized and converted to output.

7. Application Example