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ST-FODP14-MPO

8K DisplayPort 1.4 Extender via One 12-Strand MPO Multimode Fiber Optic Cable

User Manual



Introduction

The XTENDEX® 8K DisplayPort 1.4 Extender via MPO Type B Fiber Optic Cable locates an Ultra-HD 8K 4320p 30Hz DisplayPort display away from a DP computer up to 984 feet (300 meters) via a 12-strand female-to-female multimode OM3 MPO Type B fiber optic cable. Each extender consists of a transmitter that connects to a DisplayPort source, and a receiver that connects to a DisplayPort display.

- Signal transmission via 12-strand multimode 50-micron OM3 MPO Type B female-to-female fiber optic cable.
- Supports Ultra-HD 8K resolutions to 7680x4320 @30Hz YUV 4:2:2, Ultra-HD 4Kx2K resolutions to 3840x2160 @60Hz YUV 4:4:4, and HDTV resolutions to 1080p @144Hz.
- DisplayPort features supported:
 - DisplayPort 1.4
 - Multi-Stream Transport (MST)
 - Up to 36-bit Deep Color
 - LPCM
 - YCbCr 4:4:4, YCbCr 4:2:2, and RGB
 - HDR
 - Bandwidth up to 23.76Gbps
- HDCP compliant
- EDID pass-through for the support of any DisplayPort display device.
- Cables can be installed in conduit prior to extender installation.
- Supports Plug-n-Play specifications.
- Low RFI/EMI for sensitive applications.

Material Supplied with this kit:

ST-FODP14-MPO Local and Remote Unit
2- DP14-3-MM 3FT DisplayPort Male-to-Male cable
2- In:100 to 240V, 50/60Hz ; Out: DC 5V, 3A
2- Multi-country line cord

Note: DP14-x-MM cables are available from NTI in 3, 6, 10 and 15 foot lengths.

Cable Available from NTI:

FIBER-MPO12-3B-275M-LSZH-FF 275 Meter 12-Strand OM3 Multimode MPO Fiber Optic Cable, LSZH, Type B, Female-Female

Features and Functions

Local Unit

1. LED Light (LINK LED)

Fiber link indicator. LED is solid BLUE when Source unit is linked to a Receiver.

2. Fiber Link Port

Simplex MPO optical transceiver port. Extension link to Simplex MPO fiber optic cable.

3. LED Light (Power LED)

5V Power indicator. LED is solid BLUE when DC is supplied to the Transmitter.

4. Power Jack

5VDC 3A Power supply connects here.

5. LED Light (Display/Monitor LED)

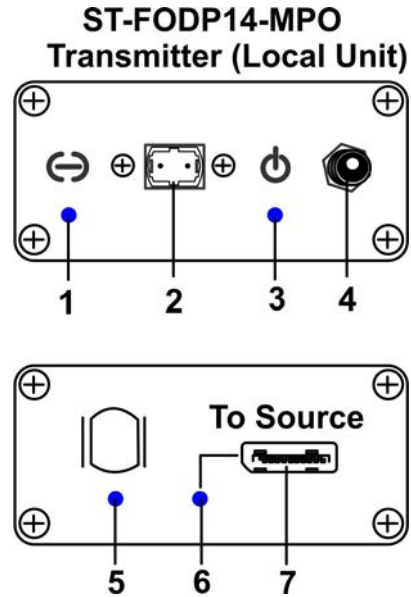
Display/Monitor connection indicator. LED is solid BLUE when display is connected to the Receiver.

6. LED Light (Source LED)

DisplayPort source connection indicator. LED is solid BLUE when DisplayPort source is connected.

7. DP Source Port

DisplayPort cable connects between here and the host computer with DisplayPort output port.



Remote Unit

1. LED Light (LINK LED)

Fiber link indicator. LED is solid BLUE when Receiver unit is linked to a Transmitter.

2. Fiber Link Port

Simplex MPO optical transceiver port. Extension link to Simplex MPO multi-mode fiber optic cable.

3. LED Light (Power LED)

5V Power indicator. LED is solid BLUE when DC is supplied to the Receiver.

4. Power Jack

5VDC 3A Power supply connects here.

5. LED Light (Computer LED)

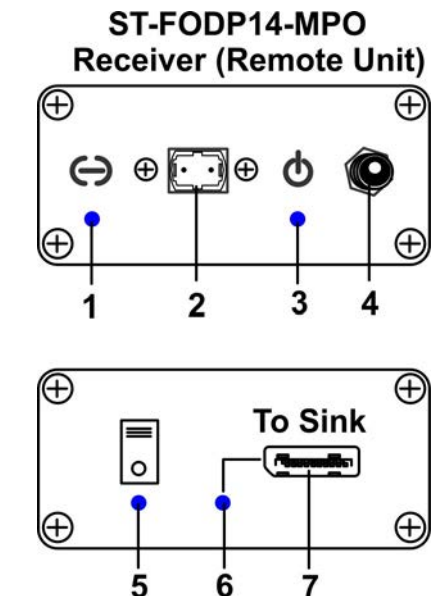
Computer connection indicator. LED is solid BLUE when computer(source) is connected to the Transmitter.

6. LED Light (Sink LED)

DisplayPort sink connection indicator. LED is solid BLUE when DisplayPort monitor (sink) is connected.

7. DP Sink Port

DisplayPort cable connects between this port and the monitor with DisplayPort input port.



Installation

This extender system is composed of two individual units, the Transmitter and the Receiver, interconnected by fiber optic cable. MPO Type B OM3 multimode fiber cabling is required for extension up to 300m.

Note: The maximum possible extension distance depends on your host-side DisplayPort output.

Step 1. Connecting the Transmitter (Local Unit) to the Receiver (Remote Unit)

Connect the Transmitter and the Receiver using a MPO Type B OM3 multimode fiber optic cable.

Step 2. Installing the Receiver

1. Connect the supplied DP14-3-MM DisplayPort cable between the Receiver and your DisplayPort monitor input.
2. Connect the supplied power adapter to the Receiver.

Step 3. Installing the Transmitter

1. Place the Transmitter near the computer.
2. Connect another supplied DP14-3-MM DisplayPort cable between your host computer and the Transmitter.
3. Connect the supplied power adapter to the Transmitter.

Application:



Specifications

| | |
|-------------------------------------|--|
| Extension Range (Point-to-point) | Up to 300m over MPO Type B OM3 Multimode Fiber |
| Supported Video Resolutions | <ul style="list-style-type: none"> ○ Ultra-HD 8K YUV 4:2:2 resolutions (7680x4320 @30Hz) <ul style="list-style-type: none"> • This resolution is only supported when using NTI's DP14-xx-MM cables. • Two 3-ft DisplayPort 1.4 cables (DP14-3-MM) included. ○ Ultra-HD 4K YUV 4:2:2 resolutions (3840x2160 @120Hz) ○ Ultra-HD 4Kx2K YUV 4:4:4 resolutions (3840x2160 @60Hz) ○ HDTV resolutions to 1080p @144Hz. |
| EDID | Pass through |
| DPCP | Supported |
| HDR | Supported |
| DP Compliance | DP 1.4 |
| HDCP | Compliant |
| Operating Temperature | 32 to 122°F (0° to 50°C) |
| Storage Temperature | -4 to 158°F (-20° to 70°C) |
| Humidity | 20-80% Operating, 10-90% Storage Relative Humidity Non-Condensing |
| Power (Local and Remote) | <ul style="list-style-type: none"> ○ Input: 100 to 240 VAC at 50 or 60Hz via AC adapter. ○ Output: 5VDC, 3A |
| Dimensions (Local and Remote) WxDxH | 2.95x5.63x1.15 in. (75x143x29 mm). |
| Approvals | CE, FCC, RoHS |

| | Transmitter (Local Unit) | Receiver(Remote Unit) |
|-------------------|---------------------------------|------------------------------|
| Video Connector | DisplayPort Female | DisplayPort Female |
| Fiber Connector | MPO x1 | MPO x1 |
| Max. data rate | 23.76Gbps | 23.76Gbps |
| Power Consumption | 5V/620mA | 5V/600mA |
| Net Weight | 274.88g | 275.24g |