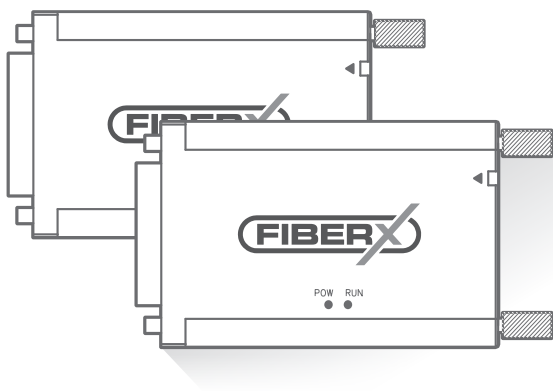


# PureLink

digital solutions



## **FX1070** **Single-Mode DVI LC-Fiber Extender Set**

Instruction Manual

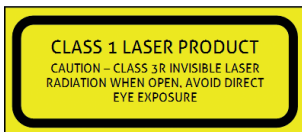
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# 1. IMPORTANT SAFETY INSTRUCTIONS

Read the operating instructions carefully and especially observe the safety information before using the device. If you do not follow the safety instructions and information on proper handling in this manual, we assume no liability for any resulting personal injury or damage to property. Such cases will invalidate the warranty/ guarantee.

**CAUTION:** Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.



The device is not a toy. Keep it out of the reach of children and pets. Do not leave packaging material lying around carelessly. These may become dangerous playing material for children. Risk of suffocation!

Pay attention to trip hazards; make sure that the cable is installed safely.

Protect the product from extreme temperatures, direct sunlight, strong jolts, high humidity, moisture, flammable gases, vapors and solvents.

Do not place the product under any mechanical stress.

If it is no longer possible to operate the product safely, take it out of operation and protect it from any accidental use.

Safe operation can no longer be guaranteed if the product:

- is visibly damaged
- is no longer working properly
- has been stored for an extended period in poor ambient conditions, or
- has been subjected to any serious transport-related stresses.

Please handle the product carefully. Jolts, impacts or a fall even from a low height can damage the product.

Also observe the safety and operating instructions of any other devices which are connected to the product.

Consult an expert when in doubt about the operation, safety or connection of the device.

## 2. INTRODUCTION

The FX1070 set is a DVI fiber transmitter / receiver kit for up to 2Km distance transmission of max. 1080p / WUXGA signals.

Using Single-Mode Fiber technology, the DVI signals incl. HDCP encryption are transmitted over only one Single-Mode 9/125 fiber core. Sources and display devices both feature galvanic isolation to avoid ground loops as well as humming effects. No delays occur in the signal, as the video image is transported without any frame latency. The FX1070 extender pair supports EDID pass-through, allowing the video source to read the video display device's capability.

Pixel Accurate Reclocking is a technology which provides exceptional signal regeneration capability. The circuitry cleans the signal from noise, skew and jitter which are caused by long cable runs and EMC incompatible devices.

## 3. FEATURES

- DVI-D connector sized extenders
- 9/125 Single-Mode Fiber 2Km extension
- Single-Mode Fiber Technology, zero frame delay
- Pixel Accurate Reclocking
- HDCP compatibility

## 4. APPLICATION

- Professional AV systems, conference rooms
- Fixed installations, Rental and Staging
- Digital signage
- Long distance lossless DVI signal transmission
- Ground loop isolation

## 5. PACKAGE INCLUDES

1x FX1070 TX Extender  
1x FX1070 RX Extender  
2x 5V AC/DC Power Adapter  
2x USB Power Cable

Please verify all items are included in the box. If anything is missing, please contact vendor for replacement.

No signal cables are included in the package.

We strongly recommend that you contact your dealer to purchase high-quality cables.

**Required Cables:** 1 LC/LC Optical Fiber Cable, Single-Mode

## 6. SPECIFICATIONS

<b>TX input, RX output:</b>	24 pole DVI-D plug
<b>Fiber:</b>	LC simplex
<b>DC Power:</b>	Micro-B USB
<b>Data rate:</b>	6.75 Gbps (2.25 Gbps per color)
<b>Resolution:</b>	WUXGA (1920x1200) / 60Hz
<b>Video Delay:</b>	0 frames
<b>HDCP pass through:</b>	Yes
<b>EDID emulation:</b>	Transparent EDID
<b>LED indicators:</b>	Link & Power Status LED's
<b>RS-232 pass through:</b>	No
<b>Fiber:</b>	OS1, 9/125 LC Single-Mode
<b>Transmission distance:</b>	OS1, 2Km
<b>Dimensions:</b>	74.66 x 40.2 x 15.9 mm (L x W x H), without Screw
<b>Weight:</b>	68 g
<b>Power consumption (TX):</b>	1.8 W
<b>Power consumption (RX):</b>	1.5 W
<b>Compliance:</b>	CE, KC, FCC
<b>Operating Temperature:</b>	0 to 50°C
<b>Storage Temperature:</b>	-20 to 70°C
<b>Relative Humidity:</b>	10 to 80 RH

### TX (Source):

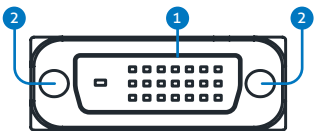
	Parameter	Symbol	Min	Max	Unit
<b>Transmitter</b> <b>[10Gbps]</b>	Center Wavelength	$\lambda_c$	1260	1360	nm
	Average Launch Power	$P_o$	-6	1	dBm
	Extinction Ratio	ER	3.5		dB
<b>Receiver</b> <b>[1.25Gbps]</b>	Maximum Input Power	$P_{in}$	1		dBm
	Receiving Wavelength	$\lambda_r$	1480	1600	nm
	Receiver Sensitivity	$P_s$	-	-23	dBm

### RX (Sink):

	Parameter	Symbol	Min	Max	Unit
<b>Transmitter</b> <b>[1.25Gbps]</b>	Center Wavelength	$\lambda_c$	1480	1600	nm
	Average Launch Power	$P_o$	-9	0	dBm
	Extinction Ratio	ER	6		dB
<b>Receiver</b> <b>[10Gbps]</b>	Maximum Input Power	$P_{in}$	1		dBm
	Receiving Wavelength	$\lambda_r$	1260	1360	nm
	Receiver Sensitivity	$P_s$	-	-13	dBm

## 7. LAYOUT

### DVI Port:



#### 1. DVI Connector (Male):

**TX Extender:** Connect to the DVI output of a source

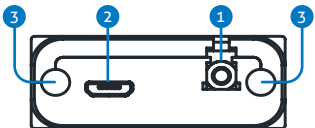
**RX Extender:** Connect to the DVI input of a monitor

#### 2. Mounting Screw:

**TX Extender:** Secure to/remove from the DVI mounting hole of a source

**RX Extender:** Secure to/remove from the DVI mounting hole of a monitor

### Optical Port:



#### 1. LC Connector (Female):

**TX Extender:** Connect to the RX Extender with the LC Optical Cable

**RX Extender:** Connect to the TX Extender with the LC Optical Cable

#### 2. USB Power Connector (Micro):

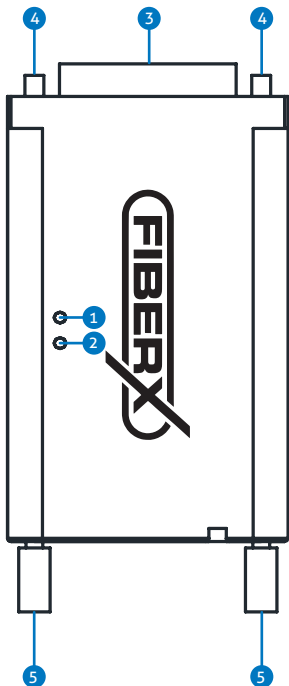
Connect to the 5V AC/DC Power Adaptor with the USB Power Cable

#### 3. Mounting Screw Head:

**TX Extender:** Help to secure to/remove from the DVI mounting hole of a source

**RX Extender:** Help to secure to/remove from the DVI mounting hole of a monitor

Top View:



**1. LED Status Indicator - Power**

**2. LED Status Indicator - Link**

**3. DVI Connector (Male)**

**TX Extender:**

Connect to the DVI output of a source

**RX Extender:**

Connect to the DVI input of a monitor

**4. Mounting Screw**

**TX Extender:**

Secure to/remove from the DVI mounting hole of a source

**RX Extender:**

Secure to/remove from the DVI mounting hole of a monitor

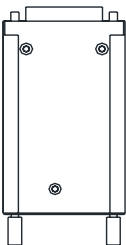
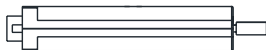
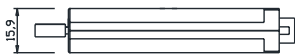
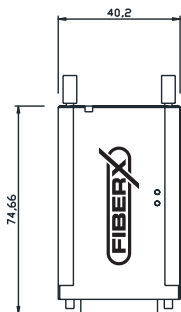
**5. Mounting Screw Head**

**TX Extender:** Help to secure to/remove from the DVI mounting hole of a source

**RX Extender:** Help to secure to/remove from the DVI mounting hole of a monitor

## 8. DIMENSION

The dimension is measured in millimetre and is proximate values.

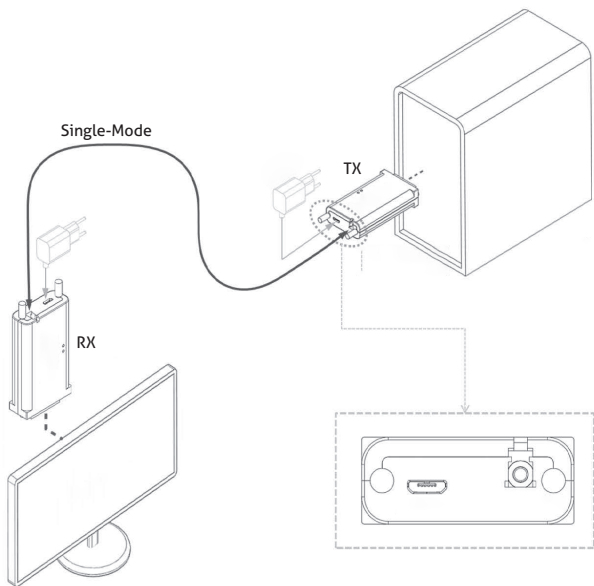




## 9. INSTALLATION DIAGRAM



**CAUTION: DO NOT** connect power to the device until all other connections are made and the unit is installed.



## 10. LED CODES

The blue LED will appear on the transmitter and receiver after all the product connections are completed.

**Red LED On:**

Power supply.

**Blue LED On:**

Signal Transfer.

**Red LED On and Blue LED Blinking:**

Only power supply, no signal recognized.

## 11. MAINTENANCE

There are no components located inside the product you need to maintain. Never open/dismantle the product. Maintenance, modifications and repairs are to be performed exclusively by an expert or at a qualified shop. If you have questions which remain unanswered by these operating instructions, contact our technical support service or other technical personnel.

## 12. CLEANING

Do not clean the LC connection without using appropriate fiber cleaning equipment such as a One-Click-Cleaner. Using any other type of cleaning product is liable to damage the fiber port beyond repair.

Before cleaning the product it must be disconnected from all other connected products. Ensure the dust cap is always replaced when not connected to an LC cable.

Do not use any aggressive cleaning agents, rubbing alcohol or other chemical solutions as they can cause damage to the housing or cause malfunctions. Be sure not to get cleaning products or solvents in or around the fiber port, even when the dust cap is in place.

To clean the product, a dry, soft and clean cloth is sufficient. Do not apply too much pressure to the housing as this may cause scratch marks.

You can easily remove dust using a long-haired, soft and clean brush.

## 13. WARRANTY AND LIABILITY

PureLink warrants this product to be in good working order for a period of one year from the date of purchase. The manufacturer guarantees full statutory warranty terms on the device only, as the manufacturer has no influence on installation, warranty only applies to the product itself.

If any fault or damage is detected on your product, please contact your dealer and provide your sales slip or invoice as evidence of the purchase, if necessary. Your dealer will repair the fault either on site, or send the device to the manufacturer. You make the work of our technicians considerably easier, describing possible faults in detail – only then you can be assured that faults, occurring only rarely, will be found and repaired with certainty!

The manufacturer is not liable for damages to persons or property caused by improper installation, operation or maintenance, not described in this manual.

Do not alter or modify the product or its accessories.

Any use other than described in this user`s manual is not permitted and causes loss of warranty, loss of guarantee, and non-liability.

## 14. CE CONFORMITY



PureLink GmbH hereby declares that the FX1070 complies with Directive 2014/30/EU.

The full text of the EU Declaration of Conformity is available at the following Internet address: [www.purelink.de](http://www.purelink.de)

## 15. DISPOSAL OF THE DEVICE



WEEE-Reg. No.: DE 93847290

According to the European WEEE directive, any electrical and electronic equipment must not be disposed of along with consumer waste. As a consumer, you are committed by law to deposit electrical and electronic devices at public collecting points or to the dealer for free at the end of the device's lifetime. Details are regulated in the respective national legislations. The Wheelie Bin symbol on the product, in the manual or on the packaging refers to these terms. With the return of your used devices you actively take part in protecting the environment.

## 16. FCC COMPLIANCE STATEMENT

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**Important:** Changes or modifications to this product not authorized by PureLink could void the electromagnetic compatibility (EMC) and wireless compliance and negate your authority to operate the product.

This product has demonstrated EMC compliance under conditions that included the use of compliant peripheral devices and shielded cables between system components. It is important that you use compliant peripheral devices and shielded cables between system components to reduce the possibility of causing interference to radios, television sets, and other electronic devices.

**Exposure to radio frequency energy** The radiated output power of this device meets the limits of FCC/IC radio frequency exposure limits. This device should be operated with a minimum separation distance of 20 cm (8 inches) between the equipment and a person's body.

Responsible party (contact for FCC matters only):

PureLink GmbH

Von-Liebig-Straße 10

48432 Rheine

Germany

## **17. DISCLAIMER**

This product complies with the statutory national and European requirements. All company names and product names are trade- marks of their respective owners.

All rights reserved.

We reserve our right for misprints and changes of the device, packing or user`s manual.







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