TRENDnet®

Quick Installation Guide

100Base-FX
Fiber Converters

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1. Before You Start

Package Contents

- Fiber Converter
- Quick Installation Guide
- AC Power Supply (7.5 DC, 1.5A)

System Requirements

- An environment that is free from strong electromagnetic field generators (such as motors), vibration, dust and direct exposure to sunlight
- TFC-1600 chassis (optional) or sturdy, level surface that can support the weight of the Fiber Converter
- 10/100Mbps Ethernet Switch
- Multi-mode or Single-mode Fiber cables/ CAT-5 RJ-45 Ethernet Cable

Product Detail

Model Name	Multi/Single-Mode	Fiber Connector	
TFC-110MM	Multi-Mode (Duplex)	MT-RJ	
TFC-110MST		ST	
TFC-110MSC		SC	
TFC-15MS100	Single-Mode (Duplex)		
TFC-110S15			
TFC-110S30			
TFC-110S60			
TFC-110S100			
TFC-110S20D3	Single-Mode Bidirectional (Simplex)	SC	
TFC-110S20D5			
TFC-110S40D3			
TFC-110S40D5			

2. Hardware Installation

Installing two stand alone Fiber Converters

1. Connect the fiber cable to the fiber converters. This cable must be multi-mode for the TFC-110MM/MST/MSC. This cable must be single-mode for the TFC-110S15/S30/S60/S100/S20D3/S20D5/S40D3/S40D5.

2. Connect an RJ-45 Ethernet cable from the Ethernet port on the fiber converters to an Ethernet port on your switch (e.g TEG-224WSplus).

3. Connect the power adapter to the back of the fiber converter.

Note: The TX and RX cables must be reverse on the opposite fiber connection.

Note: The TFC-110S20D3 must be paired with the TFC-110S20D5. The TFC-110S40D3 must be paired with the TFC-110S40D5.

Note: TFC-15MS100 converts Multi-Mode to Single-Mode fiber, it can be connected to a switch with Multi-Mode SC-type fiber connection (e.g TEG-S2400i / TEG-S2600i / TEG-S3000i with fiber modules) to extend the distance up to 15km with Single-Mode fiber.

<u>Installing Fiber Converter in a Chassis</u>

4. Unscrew the bay cover from the desired bay on the chassis.
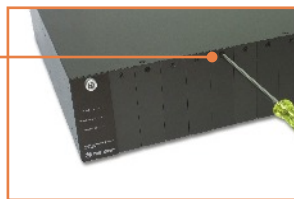
5. Unfasten the thumbscrew and remove the fiber converter from the metal casing.

6. Slide the media converter into an available slot and fasten the thumbscrew.

Your installation is now complete.

Specifications

Applicable Standards:	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX & 100BASE-FX
Fixed Ports:	1 TX port, 1 FX port
Speed:	10/20Mbps for half/full-duplex 100/200Mbps for half/full-duplex
Forwarding rate:	148,800pps
LED Indicators:	TFC-110 series Per Unit: Power; Speed (100) Per Port: FDX/COL, LINK/ACT TFC-15MS100 Per Unit: Power Per Port: Link/ACT
DIP Switches:	TFC-110 series: Duplex (On/half-duplex, Off/full-duplex) TFC-15MS100: None
Cable :	10BASE-T: 2-pair UTP Cat. 3,4,5 100BASE-TX: 2-pair UTP Cat. 5 100BASE-SX: 62.5/125um or 50/125um multi-mode fiber optic cable 100BASE-LX: 9/125um or 10/125um single-mode fiber optic cable
Dimensions:	L120 × W88 × H25 mm
Weight:	305 g
Power:	External power adaptor 7.5V 1.5A
Power Consumption:	7.2W Max.
Temperature:	Operating: 0°C ~ 40°C (32°F ~ 104°F) Storage: -25°C ~ 70°C (-13°F ~ 158°F)
Humidity:	10 ~ 90%, non-condensing
Certifications:	FCC part 15 Class B, CISPR ClassB, VCCI Class B, CE Mark

Ordering Information

Media Converters							
	Port 1			Port 2			
Model Number	Speed (Mbps)	Cable/Connector	Max. Distance	Speed (Mbps)	Wavelength	Cable(/125 µm) /Connector	Max. Distance
TFC-110MSC	10/100	Cat. 3, 4, 5, EIA/TIA-568 100-ohm STP	100M	100	1300nm	MMF (50µm or 62.5µm) SC	2 km
TFC-110MST	10/100	Cat. 3, 4, 5, EIA/TIA-568 100-ohm STP	100M	100	1300nm	MMF (50µm or 62.5µm) ST	2 km
TFC-110MM	10/100	Cat. 3, 4, 5, EIA/TIA-568 100-ohm STP	100M	100	1300nm	MMF (50µm or 62.5µm) MT-RJ	2km
TFC-110S15	10/100	Cat. 3, 4, 5, EIA/TIA-568 100-ohm STP	100M	100	1300nm	SMF (9µm or 10µm) SC	15 km
TFC-110S30	10/100	Cat. 3, 4, 5, EIA/TIA-568 100-ohm STP	100M	100	1300nm	SMF (9µm or 10µm) SC	30 km
TFC-110S60	10/100	Cat. 3, 4, 5, EIA/TIA-568 100-ohm STP	100M	100	1300nm	SMF (9µm or 10µm) SC	60 km
TFC-110S100	10/100	Cat. 3, 4, 5, EIA/TIA-568 100-ohm STP	100M	100	1300nm	SMF (9µm or 10µm) SC	100 km
TFC-110S20D3	10/100	Cat. 3, 4, 5, EIA/TIA-568 100-ohm STP	100M	100	TX: 1310nm RX: 1550nm	Bi-directional SMF (9µm or 10µm) SC	20 km
TFC-110S20D5	10/100	Cat. 3, 4, 5, EIA/TIA-568 100-ohm STP	100M	100	TX: 1310nm RX: 1550nm	Bi-directional SMF (9µm or 10µm) SC	20 km
TFC-110S40D3	10/100	Cat. 3, 4, 5, EIA/TIA-568 100-ohm STP	100M	100	TX: 1310nm RX: 1550nm	Bi-directional SMF (9µm or 10µm) SC	40 km
TFC-110S40D5	10/100	Cat. 3, 4, 5, EIA/TIA-568 100-ohm STP	100M	100	TX: 1310nm RX: 1550nm	Bi-directional SMF (9µm or 10µm) SC	40 km
TFC-15MS100	100	MMF 1300nm (50µm or 62.5µm) SC	2KM	100	1300nm	SMF (9µm or 10µm) SC	15 km

Note: MMF (multi-mode fiber); SMR (single-mode fiber)

Troubleshooting

Q1: After connecting the Fiber converter, the LEDs do not turn on. What should I do?

A1: First, check that the power outlet is receiving power.   Second, make sure the power adapter is firmly connected to the Fiber converter and the power outlet. Third, make sure the Ethernet and the Fiber cables are connected.

Q2: All the LEDs are on, but I can't make a connection. What should I do?

A2: First, verify that you are using the proper fiber cable (e.g. multi-mode fiber cable for multi-mode converter; single-mode fiber cables for single-mode converters). Second, verify that the TX and RX cables have been reverse on the opposite Fiber connection. Third, power down the fiber converters and the switches. Wait 15 seconds, then plug the switches and the fiber converters back in.

Q3: What is the maximum distance that is supported by the fiber converter?

A3: Please reference section 4 for distance information.

If you still encounter problems or have any questions regarding the Fiber Converters please contact TRENDnet's Technical Support Department.

Limited Warranty

TRENDnet warrants its products against defects in material and workmanship, under normal use and service, for the following lengths of time from the date of purchase.

Fiber Converters - 5 Year Warranty

If a product does not operate as warranted above during the applicable warranty period, TRENDnet shall, at its option and expense, repair the defective product or deliver to customer an equivalent product to replace the defective item. All products that are replaced will become the property of TRENDnet. Replacement products may be new or reconditioned.

TRENDnet shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to TRENDnet pursuant to any warranty.

There are no user serviceable parts inside the product. Do not remove or attempt to service the product through any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDnet office within the applicable warranty period for a Return Material Authorization (RMA) number, accompanied by a copy of the dated proof of the purchase. Products returned to TRENDnet must be pre-authorized by TRENDnet with RMA number marked on the outside of the package, and sent prepaid, insured and packaged appropriately for safe shipment.

WARRANTIES EXCLUSIVE: IF THE TRENDNET PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, THE CUSTOMER'S SOLE REMEDY SHALL BE, AT TRENDNET'S OPTION, REPAIR OR REPLACEMENT. THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. TRENDNET NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE OR USE OF TRENDNET'S PRODUCTS.

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LIMITATION OF LIABILITY: TO THE FULL EXTENT ALLOWED BY LAW TRENDNET ALSO EXCLUDES FOR ITSELF AND ITS SUPPLIERS ANY LIABILITY, WHETHER BASED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE), FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY KIND, OR FOR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, LOSS OF INFORMATION OR DATE, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, MAINTENANCE, USE, PERFORMANCE, FAILURE, OR INTERRUPTION OF THE POSSIBILITY OF SUCH DAMAGES, AND LIMITS ITS LIABILITY TO REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT TRENDNET'S OPTION. THIS DISCLAIMER OF LIABILITY FOR DAMAGES WILL NOT BE AFFECTED IF ANY REMEDY PROVIDED HEREIN SHALL FAIL OF ITS ESSENTIAL PURPOSE.

Governing Law: This Limited Warranty shall be governed by the laws of the state of California.

Note: AC/DC Power Adapter, Cooling Fan, Cables and Power Supply carry 1-Year Warranty

Certifications

This equipment has been tested and found to comply with FCC and CE Rules.

Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received. Including interference that may cause undesired operation.

FC **CE** **PG**

Waste electrical and electronic products must not be disposed of with household waste. Please recycle where facilities exist. Check with you Local Authority or Retailer for recycling advice.

NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

ADVERTENCIA

En todos nuestros equipos se mencionan claramente las caracteristicas del adaptador de alimentacón necesario para su funcionamiento. El uso de un adaptador distinto al mencionado puede producir daños fisicos y/o daños al equipo conectado. El adaptador de alimentación debe operar con voltaje y frecuencia de la energia electrica domiciliaria existente en el pais o zona de instalación.

TRENDnet

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24/7 Technical Support 365

Product Warranty Registration

Please take a moment to register your product online.
Go to TRENDnet's website at http://www.trendnet.com

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