



Quick Installation Guide



100Base-FX Fiber Converters

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# 1. Что нужно сделать в самом начале



#### Содержимое упаковки

- Волоконый преобразователь
- Руководство по быстрой установке
- Блок питания (7,5 пост. т., 1,5А)

## Минимальные требования

- Место, в котором отсутствуют источники электромагнитных полей (напр., двигатели), вибрация, пыль, и куда не проникает прямой солнечный свет
- Шасси TFC-1600 (дополнительно) или устойчивая, ровная поверхность, выдерживающая вес волоконного преобразователя.
- Коммутатор Ethernet 10/100 Мбит/с
- Волоконные кабели многомодовые или одномодовые
- Кабель CAT-5 RJ-45 Ethernet

### Описание изделия

Model Name	Multi/Single-Mode		Fiber Connector
TFC-110MM		MT-RJ	
TFC-110MST	Multi-Mode (Duplex)	ST	
TFC-110MSC			
TFC-15MS100			
TFC-110S15		SC	
TFC-110S30	Single-Mode		
TFC-110S60	(Duplex)		
TFC-110S100			
TFC-110S20D3			
TFC-110S20D5	Single-Mode Bidirectional	SC	Contract of the second
TFC-110S40D3	(Simplex)	30	
TFC-110S40D5			

# 2. Установка оборудования

# Установка 2 отдельных преобразователей

- 1. Присоедините волоконный кабель к преобразователю. Данный кабель должен быть многомодовым, для the TFC-110MM/MST/MSC. Данный кабель должен быть одномодовым, TFC-110S15/S30/S60/S100/S20D3/S20D5/S40D3/S40D5.
- 2. Подключите кабель RJ-45 Ethernet от порта Ethernet на преобразователе к порту Ethernet на коммутаторе (напр., TEG-424WS).
- **3.** Присоедините силовой адаптер к задней панели преобразователя.





<u>Примечание:</u> кабели ТХ и RX нужно переставить на противоположном волоконном соединении.

<u>Примечание:</u> Устройство TFC-110S20D3 должно быть спарено с устройством TFC-110S20D5. Устройство TFC-110S40D3 должно быть спарено с устройством TFC-110S40D5.

Примечание: устройство TFC-15MS100 преобразует многомодовый волоконный носитель в одномодовый, оно может подключаться к коммутатору с многомодовым волоконным соединением типа SC (напр., TEG-S3000i с волоконными модулями) для увеличения расстояния до 15 км при одномодовом волоконном кабеле.

# Установка преобразователя в шасси

**4.** Отверните винты на крышке нужного отсека шасси.



5. Отверните винт с накатной головкой и снимите волоконный преобразователь с металлического корпуса



 Задвиньте преобразователь носителей в имеющееся гнездо и заверните винт с накатной головкой.



### Установка завершена.

### Зарегистрируйте свой продукт

Для того, чтобы воспользоваться сервисным обслуживанием и поддержкой на высшем уровне, предлагаем вам зарегистрировать свой продукт в режиме онлайн здесь: <a href="http://www.trendnet.ru/products/registration.php">http://www.trendnet.ru/products/registration.php</a>
Благодарим Вас за то, что Вы выбрали TRENDnet

# **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	2 km
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: 1550nm RX: 1310nm	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: 1550nm RX: 1310nm	Bi-directional SMF (9µm or 10µm ) SC	40 km
TFC-15MS100	100	MMF 1300nm (50μm or 62.5μm ) SC	2 km	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 Limited Warranty
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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 preauthorized 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.





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.



# **Product Warranty Registration**

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

# TRENDNET

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