



## Fiber Converters

### TFC-1000 Series

- Anleitung zur Schnellinstallation [1]

## 1. Bevor Sie anfangen

### Packungsinhalt

- Glasfaserkonverters
- Mehrsprachige Installationsanleitung
- Netzteil

Wenn keiner der oben genannten Inhalte fehlen, wenden Sie sich an Ihren Fachhändler.

### Mindestanforderungen

- Ausreichend kühle und trockene Umgebung
- Abwesenheit von starken Quellen elektromagnetischer Felder (wie Motoren), Vibrationen, Staub und direkter Sonneneinstrahlung
- TFC-1600-Gehäuse (optional) oder feste, ebene Oberfläche, die das Gewicht des Konverters tragen kann
- 1000Mbps Gigabit Ethernet Switch
- Multi- oder Einzelmodus-Glasfaserkabel
- Kat. 5 oder Kat. 6 RJ-45-Ethernetkabel

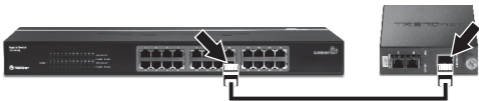
### Optionale Geräte

- Standardmäßiges 19"-Gestell
- TFC-1600-Gehäuse
- Mini-GBIC-Modul (z.B. TEG-MGBSX, TEG-MGBS10, TEG-MGBS40, TEG-MGBS80, TEG-MGBS10D35, TEG-MGBS40D35) für Mini-GBIC-Steckplätze (nur TFC-1000MGB/TFC-1000MGA)

## 2. Installation der Hardware

### Installation eigenständiger Glasfaserkonverter

1. Verbinden Sie den Ethernet-Port des Glasfaserkonverters über ein RJ-45-Ethernetkabel mit einem Ethernet-Port Ihres Umschalters (z.B. TEG-S24Dg).



2. Verbinden Sie den Glasfaserkonverter mit einem Glasfaserkabel.



3. Verbinden Sie das Netzteil mit der Buchse auf der Rückseite des Konverters.



### **Hinweis:**

1. Bei TFC-1000MSC / S20/ S50 / S70 müssen die Sende- (TX) und Empfangs-(RX) Kabel an der entgegengesetzten Glasfaser Verbindung vertauscht werden.
2. Kabel
  - a. Multimodus-Glasfaserkabel: TFC-1000MSC, TFC-1000MGB/TFC-1000MGA mit Modul TEG-MGBSX
  - b. Einzelmodus-Glasfaserkabel: TFC-1000S20, TFC-1000S50, TFC-1000S70, TFC-1000MGB/TFC-1000MGA mit Modul TEG-MGBS10/TEG-MGBS40/TEG-MGBS80
  - c. Einzelsträngiges Glasfaserkabel: TFC-1000S10D3, TFC-1000S10D5, TFC-1000S40D3, TFC-1000S40D5, TFC-1000MGB/TFC-1000MGA mit Modul TEG-MGBS10D35/TEG-MGBS40D35

## Installation der Glasfaserkonverter in einem Gehäuse

1. Schrauben Sie die Abdeckung des entsprechenden Gehäuseteils ab.



2. Lösen Sie die Schraube und nehmen Sie den Glasfaserkonverter aus dem Metallgehäuse



3. Schieben Sie den Medienkonverter in einen freien Steckplatz und ziehen Sie die Schraube wieder an.



**Ihre Installation ist beendet!**

### 3. LEDs und DIP-Schalter

#### LEDs

LED	Farbe	Sequenz	Funktion
<b>PWR (Stromversorgung)</b>	Grün	leuchtet	Gerät eingeschaltet
	Aus		Gerät ausgeschaltet
<b>LINK/ACT</b>	Grün	leuchtet	2000 MBit/s (voll duplex) verbunden (pro Port)
	Grün	Blinking	2000 MBit/s (Voll duplex) Datenübertragung/-empfang (pro Port)
	Aus		Die Verbindung ist unterbrochen

#### DIP-Schalter

Schalter	Vorgang	Funktion
<b>1</b>	Ein	TX Forced Mode (Erzwungener Modus)
	Aus	TX Auto-Negotiation
<b>2</b>	Ein	LLR Enable (Aktivieren)
	Aus	LLR Disable (Deaktivieren)

#### Hinweis:

1. Schalten Sie den Glasfaserkonverter nach der Änderung der DIP-Schalterstellungen aus und wieder ein.
2. LLR bedeutet „Link Loss Return“ (Rückgabe des Verbindungsverlusts). Wenn LLR aktiviert ist, schaltet sich der Sender des Glasfaserports aus, sobald sein Empfänger keine gültige Empfangsverbindung erkennt. Bei fehlerhaften optischen Leitern gibt die Karte einen Verbindungsfehler zum jeweils angeschlossenen Gerät aus. Mit LLR lassen sich ausschließlich Verbindungsprobleme an Glasfaseranschlüssen erfassen. Wenn LLR an einem Glasfaserkonverter aktiviert ist, muss die Funktion am damit verbundenen Gerät deaktiviert sein.

## 4. Technical Specifications

### Power Budget

Model Number	Media	Connectors	Wavelength	Optical Output Power (dBm)		Optical Input Power (dBm)		Power	Distance
				Min.	Max.	Min. (Sensitivity)	Max.	Budget	
TFC-1000MSC	MMF	RJ-45/SC (Duplex)	850nm	-9.5	-4	-12.5	-13.5	7.5	220m (62.5/125µm) cable 550m (50/125 µm) cable
TFC-1000S20	SMF	RJ-45/SC (Duplex)	1310nm	-9.5	-3	-20	-3	11.5	20km
TFC-1000S50	SMF	RJ-45/SC (Duplex)	1550nm	-4	1	-23	-3	19	50km
TFC-1000S70	SMF	RJ-45/SC (Duplex)	1550nm	0	5	-24	-3	24	70km
TFC-1000S10D3	SMF	RJ-45/SC- (Simplex)	TX-1310nm/ RX-1550nm	-9	-3	-21	-3	12	10km
TFC-1000S10D5	SMF	RJ-45/SC- (Simplex)	TX-1550nm/ RX-1310nm	-9	-3	-21	-3	12	10km
TFC-1000S40D3	SMF	RJ-45/SC- (Simplex)	TX-1310nm/ RX-1550nm	-7	-2	-23	-2	16	40km
TFC-1000S40D5	SMF	RJ-45/SC- (Simplex)	TX-1550nm/ RX-1310nm	-7	-2	-23	-2	16	40km

# Declaration of Conformity



## Company Information:

Company Name:  
TRENDnet, Inc.

Company Address:  
20675 Manhattan Place  
Torrance, CA 90501  
USA

## Product Information:

Product Description:  
1000Base-TX to 1000Base-SX/LX Fiber Converter

Model Number:  
TFC-1000MSC, TFC-1000S20, TFC-1000S50, TFC-1000S70  
TFC-1000MGB, TFC-1000MGA, TFC-1000S10D3,  
TFC-1000S10D5 1000S40D3, TFC-1000S40D5

Brand name:  
TRENDnet



## Technical Standards:

EN 55022 : 2006 Class A  
EN 61000-3-2 : 2006 Class A  
EN 61000-3-3 : 1995 + A1 : 2001 + A2 : 2005  
EN 55024 : 1998 + A1 : 2001 + A2 : 2003

## Declaration:

*The product is herewith confirmed to comply with the requirements of Directive 2004/108/EC of the Council (European Parliament) on the EMC directive and Energy-related products Directive 2009/125/EC.*

*I hereby declare that the products and devices mentioned above are consistent with the standards and provisions of the guidelines.*

Sonny Su

Full Name

May 27, 2011

Date

Director of Technology

Position / Title

Signature

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AC/DC Power Adapter, Cooling Fan, and Power Supply carry a 1 year warranty.

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Go to TRENDnet's website at <http://www.trendnet.com/register>

### 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.



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