

# TRENDnet<sup>®</sup>



## Quick Installation Guide

TFC-1000 Series (V1.1)

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# 1. Before You Start

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## Package Contents

- Fiber Converter
- Multi-Language Quick Installation Guide
- Power Adapter

## Minimum Requirements

- An environment that is fairly cool and dry
- 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
- Gigabit Ethernet Switch
- Multi-Mode or Single-Mode Fiber cable
- Cat. 5e or higher Ethernet Cable

## Optional Equipment

- Standard 19" rack
- TFC-1600 chassis
- Mini-GBIC module (e.g. TEG-MGBSX, TEG-MGBS10, TEG-MGBS40, TEG-MGBS80) for Mini-GBIC slot (TFC-1000MGB/TFC-1000MGA only)

## 2. Hardware Installation

### Installing two standalone Fiber Converters

1. Connect an RJ-45 Ethernet cable from the Ethernet port on the fiber converters to an Ethernet port on your switch (e.g TEG-S24Dg).



2. Connect the fiber cable to the fiber converters.



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



#### **Note:**

1. For the TFC-1000MSC / S20/ S50 / S70, the TX and RX cables must be reversed on the opposite fiber connection.

#### 2. Cabling

- a. Multi-Mode Optic Cable: TFC-1000MSC, TFC-1000MGB/TFC-1000MGA with TEG-MGBSX module
- b. Single-Mode Optic Cable: TFC-1000S20, TFC-1000S50, TFC-1000S70, TFC-1000MGB/TFC-1000MGA with TEG-MGBS10/TEG-MGBS40/TEG-MGBS80 module
- c. Single Strand Optic Cable for TFC-1000S10D3, TFC-1000S10D5, TFC-1000S40D3, TFC-1000S40D5, TFC-1000MGB /TFC-1000MGA with TEG-MGBS10D35/TEG-MGBS40D35 module

## **Installing Fiber Converter in a Chassis**

1. Unscrew the bay cover from the desired bay on the chassis.



2. Unfasten the thumbscrew and remove the fiber converter from the metal casing.



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



### 3. LEDs and DIP switches

LEDs			
LED	Color	Sequence	Function
PWR (Power)	Green	Solid	Device powered On
	Off	n/a	Device powered Off
LINK/ ACT	Green	Solid	2000Mbps (Full Duplex) Connection (per port)
	Green	Blinking	2000Mbps (Full Duplex) Data Transmitting/ Receiving (per port)
	Off	n/a	The link is disconnected

Dip Switches		
Switch	Action	Function
1	On	TX Forced Mode
	Off	TX Auto-Negotiation
2	On	LLR Enable
	Off	LLR Disable

#### **Note:**

1. After changing the DIP Switch settings, power cycle the Fiber Converter
2. LLR stands for Link Loss Return. When LLR is enabled, the fiber port's transmitter shuts down if its receiver fails to detect a valid receive link. If one of the optical conductors is bad, the Fiber converter with LLR enabled will return a no link condition to its link partner. LLR is used to detect link problems only on the fiber port. If LLR is enabled on one Fiber converter, the opposite Fiber converter must have LLR disabled

# 1. Avant de commencer

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## Contenu de l'emballage

- Convertisseur fibre
- Guide d'installation rapide en plusieurs langues
- Alimentation

## Configuration minimale

- Un environnement assez frais et sec
- Un environnement exempt de toute source de génération de champ électromagnétique fort (comme les moteurs), de vibration, de poussières et veuillez à ce qu'il ne soit pas directement exposé aux rayons du soleil.
- Châssis TFC-1600 (non fourni) ou une surface plane pouvant supporter le poids du convertisseur fibre
- Switch Gigabit 1000Mbps
- Câbles fibres multi-mode ou monomode
- Câble Ethernet RJ-45 Cat. 5e ou plus

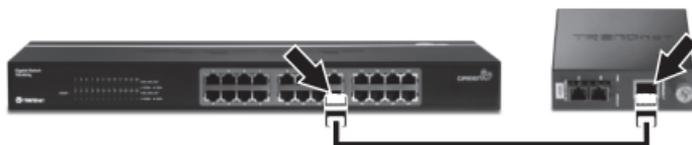
## Équipement optionnel

- Un rack standard 19 pouces
- Châssis TFC-1600
- Module Mini GBIC (par ex. TEG-MGBSX, TEG-MGBS10, TEG-MGBS40, TEG-MGBS80) pour logements Mini GBIC (TFC-1000MGB/TFC-1000MGA uniquement)

## 2. Installation du matériel

### Installation de 2 convertisseurs fibre autonomes

1. Branchez un câble Ethernet RJ-45 entre le port Ethernet des convertisseurs de fibre et le port Ethernet de votre switch (TEG-S24Dg).



2. Branchez le câble fibre aux convertisseurs fibre.



3. Branchez l'adaptateur secteur à l'arrière du convertisseur fibre.



### Remarque:

1. Pour le TFC-1000MSC / S20/ S50 / S70, les câbles TX et RX doivent être inversés sur la connexion fibre opposée.
2. Câblage
  - a. Câble optique multimode: TFC-1000MSC, TFC-1000MGB/ TFC-1000MGA avec le module TEG-MGBSX
  - b. Câble optique monomode: TFC-1000S20, TFC-1000S50, TFC-1000S70, TFC-1000MGB/TFC-1000MGA avec le module TEG-MGBS10/ TEG-MGBS40/TEG-MGBS80
  - c. Câble optique à simple brin: TFC-1000S10D3, TFC-1000S10D5, TFC-1000S40D3, TFC-1000S40D5, TFC-1000MGB/TFC-1000MGA avec le module TEG-MGBS10D35/TEG-MGBS40D35

## **Installation d'un convertisseur fibre dans un châssis**

1. Dévissez le cache baie de la baie choisie sur le châssis.



2. Desserrez la vis à molette et enlevez le convertisseur fibre du logement métallique



3. Glissez le convertisseur media dans un logement disponible et serrez la vis à molette.



### 3. Voyants Lumineux Et Interrupteurs Dip

Voyants lumineux			
Voyants lumineux	Couleur	Séquence	Fonction
<b>PWR (Alimentation)</b>	Vert	Fixe	Périphérique alimenté allumé
	Arrêt		Périphérique alimenté éteint
<b>LINK/ACT</b>	Vert	Fixe	2000Mbps (Full Duplex) branché (par port)
	Vert	Clignotant	2000Mbps (Full Duplex) Emission/ réception de données (par port)
	Arrêt		La liaison est coupée

Interrupteurs DIP		
Switch	Action	Fonction
<b>1</b>	<b>Activé</b>	TX Forced Mode (Mode forcé)
	<b>Arrêt</b>	TX Auto-Negotiation (Auto-négociation)
<b>2</b>	<b>Activé</b>	LLR Enable (Activer)
	<b>Arrêt</b>	LLR Disable (Désactiver)

#### Remarque:

1. Après avoir changé les paramètres de l'interrupteur DIP, éteignez et rallumez le convertisseur fibre.
2. LLR signifie Link Loss Return. Lorsque le LLR est activé, l'émetteur du port fibre s'éteint si son récepteur n'arrive pas à détecter une liaison valable. Si l'un des conducteurs optiques est endommagé, la carte avec le LLR activé informera son partenaire de liaison de l'absence de liaison. Le LLR est utilisé pour détecter les problèmes de liaison uniquement sur le port fibre. Si le LLR est activé sur un convertisseur fibre, le LLR du convertisseur fibre opposé doit être désactivé.

# 1. Bevor Sie anfangen

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## Packungsinhalt

- Glasfaserkonverters
- Mehrsprachige Installationsanleitung
- Netzteil

## 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 höher Ethernetkabel

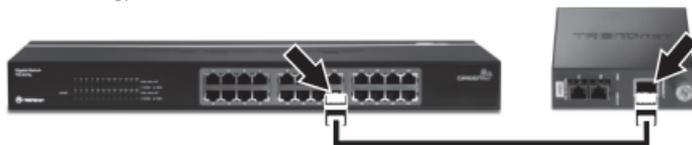
## Optionale Geräte

- Standardmäßiges 19"-Gestell
- TFC-1600-Gehäuse
- Mini-GBIC-Modul (z.B. TEG-MGBSX, TEG-MGBS10, TEG-MGBS40, TEG-MGBS80) 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 Converters.



#### **Hinweis:**

1. Bei TFC-1000MSC / S20/ S50 / S70 müssen die Sende- (TX) und Empfangs-(RX) Kabel an der entgegengesetzten Glasfaserverbindung 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.



### 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.

# 1. Antes de comenzar

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## Contenidos del paquete

- Convertidor de fibra
- Guía de instalación rápida multilingüe
- Alimentación eléctrica de CA

## Requisitos mínimos

- Un entorno bastante fresco y seco
- Un ambiente donde no haya generadores de campos electromagnéticos fuertes (como motores), vibraciones, polvo o exposición directa a la luz solar
- Un chasis TFC-1600 (opcional) o una superficie firme y nivelada capaz de sostener el peso del Convertidor de fibra.
- 1000Mbps Gigabit Ethernet Switch
- Cables de fibra para conexiones multimodo o de modo sencillo
- Cat. 5e or higher Ethernet Cable

## Equipo Opcional

- Rack estándar de 19"
- Chasis TFC-1600
- Módulo Mini-GBIC (por ejemplo, TEG-MGBSX, TEG-MGBS10, TEG-MGBS40, TEG-MGBS80) para ranuras Mini-GBIC (sólo para TFC-1000MGB/TFC-1000MGA)

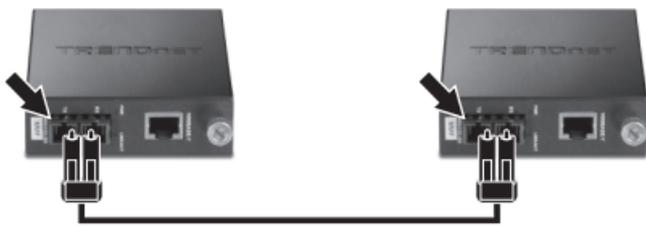
## 2. Instalación Del Hardware

### Instalación de 2 convertidores de fibra de forma independiente

1. Conecte un cable de ethernet RJ-45 desde el puerto ethernet de los convertidores de fibra hasta un puerto ethernet del conmutador (como el TEG-S24Dg).



2. Conecte el cable de fibra a los convertidores.



3. Conecte el adaptador de corriente a la parte posterior del convertidor.



#### **Nota:**

1. Para el TFC-1000MSC / S20/ S50 / S70, los cables TX y RX se deben colocar al revés en la conexión de fibra contraria.
2. Cableado
  - a. Cable de fibra óptica multimodo: TFC-1000MSC, TFC-1000MGB/ TFC-1000MGA con módulo TEG-MGBSX
  - b. Cable de fibra óptica monomodo: TFC-1000S20, TFC-1000S50, TFC-1000S70, TFC-1000MGB/TFC-1000MGA con módulo TEG-MGBS10/TEG-MGBS40/ TEG-MGBS80
  - c. Cable de fibra óptica trenzado: TFC-1000S10D3, TFC-1000S10D5, TFC-1000S40D3, TFC-1000S40D5, TFC-1000MGB /TFC-1000MGA con módulo TEG-MGBS10D35/ TEG-MGBS40D35

## **Instalación del convertidor de fibra sobre un chasis**

1. Destornille la tapa del compartimiento deseado del chasis.



2. Afloje el tornillo de ajuste manual y saque el convertidor de la caja de metal.



3. Inserte el convertidor de medios en una ranura disponible y apriete el tornillo de ajuste manual.



### 3. Indicadores LED y Switchs Dip

Indicadores LED			
Indicadores LED	Color	Secuencia	Función
<b>PWR (Corriente)</b>	Verde	Sólido	Dispositivo encendido
		Apagado	Dispositivo apagado
<b>LINK/ACT</b>	Verde	Sólido	2000 Mbps (Full Dúplex) (por puerto)
	Verde	Intermitente	2000Mbps (Full Dúplex) (Transmisión y recepción de datos)(por puerto)
		Apagado	El enlace está desconectado

Conmutadores DIP		
Conmutador	Acción	Función
<b>1</b>	<b>Encendido</b>	TX Forced Mode (Modo forzoso)
	<b>Apagado</b>	TX Auto-Negotiation (Autonegociación)
<b>2</b>	<b>Encendido</b>	LLR Enable (Activado)
	<b>Apagado</b>	LLR Disable (Desactivado)

#### **Nota:**

1. Después de cambiar las configuraciones del conmutador DIP, reinicie el conversor de fibra.
2. LLR significa Link Loss Return. Cuando LLR está activado, el transmisor de puerto de fibra se apaga si su receptor no puede detectar un enlace válido. Si uno de los conductores ópticos es malo, la tarjeta con LLR activado devolverá una condición de no enlace a su enlace de socios LLR se utiliza para detectar problemas de enlace sólo en el puerto de fibra Si LLR no está activo en un convertidor de fibra, el convertidor de fibra opuesto debe tener LLR desactivado.

# 1. Antes de Começar

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## Conteúdo da Embalagem

- Conversor Fibra
- Guia de instalação rápida
- Adaptador de energia

## Requisitos do ambiente

- Ambiente bastante fresco e seco
- Ambiente livre de fortes geradores de campo eletromagnético (como motores), vibração, poeira e exposição direta à luz solar
- Chassi TFC-1600 (opcional) ou superfície nivelada e resistente que suporta o peso do conversor de fibra
- Switch Ethernet Gigabit
- Cabo de fibra multimodo ou monomodo
- Cabo Ethernet Cat.5e ou mais alto

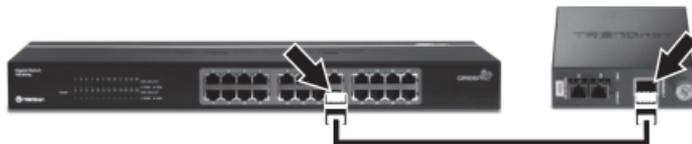
## Equipamento opcional

- Rack padrão de 19"
- Chassi TFC-1600
- Módulo Mini-GBIC (exemplo: TEG-MGBSX, TEG-MGBS10, TEG-MGBS40, TEG-MGBS80) para slot Mini-GBIC (apenas TFC-1000MGB/TFC-1000MGA)

## 2. Instalação do Hardware

### Instalação de dois conversores de fibra autônomos

1. Conecte um cabo Ethernet RJ-45 da porta Ethernet nos conversores de fibra à uma porta Ethernet no seu switch (por exemplo, TEG-S24Dg).



2. Conecte o cabo de fibra aos conversores de fibra.



3. Conecte o adaptador de energia na parte traseira do conversor de fibra.



### **Nota:**

1. Para o TFC-1000MSC / S20 / S50 / S70, os cabos TX e RX devem ser revertidos na conexão de fibra oposta.
2. Cabear
  - a. Cabo Óptico Multimodo:: TFC-1000MSC, TFC-1000MGB / TFC-1000MGA com módulo TEG-MGBSX
  - b. Cabo Óptico Monomodo: TFC-1000S20, TFC-1000S50, TFC-1000S70, TFC-1000MGB / TFC-1000MGA com TEG-MGBS10 / TEG-MGBS40 /Módulo TEG-MGBS80
  - c. Cabo óptico de fio único para TFC-1000S10D3, TFC-1000S10D5, TFC-1000S40D3, TFC-1000S40D5, TFC-1000MGB / TFC-1000MGA com Módulo TEG-MGBS10D35 / TEG-MGBS40D35

## **Instalando o Conversor de Fibra em um Chassi**

1. Desaparafuse a tampa do compartimento desejado no chassi.



2. Desaperte o parafuso e remova o conversor de fibra da caixa de metal.



3. Deslize o conversor de mídia em um slot disponível e aperte o parafuso.



### 3. Interruptores DIP e LEDs

LEDs			
LED	Color	Sequência	Função
PWR (Energia)	Verde	Sólido	Dispositivo ligado
	Desligado	n/a	Dispositivo desligado
LINK/ ACT	Verde	Sólido	Conexão de 2000Mbps (Full Duplex) (por porta)
	Verde	Piscando	Transmissão/Recebimento de Dados de 2000Mbps (Full Duplex) (por porta)
	Desligado	n/a	O link está desconectado

Interruptor DIP		
Switch	Ação	Função
1	Ligar	Modo Forçado TX
	Desligar	Negociação automática TX
2	Ligar	Habilitar LLR
	Desligar	Desabilitação do LLR

#### Nota:

1. Após alterar as configurações da chave DIP, ligue o conversor de fibra
2. LLR significa Link Loss Return. Quando o LLR está ativado, o transmissor da porta de fibra é desligado se o receptor falhar em detectar um link de recebimento válido. Se um dos condutores ópticos estiver com defeito, o conversor de fibra com LLR ativado retornará uma condição sem link ao seu parceiro de link. O LLR é usado para detectar problemas de link apenas na porta de fibra. Se o LLR estiver ativado em um conversor de fibra, o conversor de fibra oposto deve ter o LLR desativado

# 1. Prima di iniziare

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## Contenuto della confezione

- Convertitore di Fibra
- Guida rapida d'installazione
- Adattatore di alimentazione

## Requisiti ambientali

- L'ambiente di interazione deve essere sufficientemente fresco e asciutto
- L'ambiente di interazione deve essere privo di potenti generatori di campi elettromagnetici (come ad esempio i motori), vibrazioni, polvere ed esposizione diretta alla luce del sole
- Telaio TFC-1600 (opzionale) o superficie solida e piana in grado di sostenere il peso del Fiber Converter (Convertitore di Fibre)
- Switch Gigabit Ethernet
- Cavo in fibra ottica Multimodale o Monomodale
- Cavo Ethernet Cat. 5e o superiore

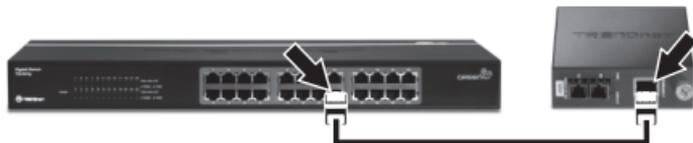
## Dotazione opzionale

- Rack standard da 19"
- Telaio TFC-1600
- Moduli mini-GBIC (per es. TEG-MGBSX, TEG-MGBS10, TEG-MGBS40, TEG-MGBS80) o slot Mini-GBIC (solo TFC-1000MGB/TFC-1000MGA)

## 2. Installazione Hardware

### Installazione di due convertitori stand alone congiuntamente

1. Collegare un cavo Ethernet RJ-45 dalla porta Ethernet dei convertitori in fibra ottica ad una porta Ethernet del proprio switch (per es. TE100-S24g).



2. Collegare il cavo a fibre ottiche ai convertitori a fibre ottiche.



3. Collegare l'adattatore di alimentazione al convertitore.



#### **Nota:**

1. Per il modello TFC-1000MSC / S20/ S50 / S70, ti cavi TX e RX devono essere installati invertiti sulla connessione a fibre ottiche opposta
2. Cablaggio
  - a. Cavo in Fibra Ottica Multimodale: TFC-1000MSC, TFC-1000MGB/ TFC-1000MGA con TEG-MGBSX moduli
  - b. Cavo in Fibra Ottica Monomodale: TFC-1000S20, TFC-1000S50, TFC-1000S70, TFC-1000MGB/TFC-1000MGA con TEG-MGBS10/ TEG-MGBS40/TEG-MGBS80 moduli
  - c. Cavo in Fibra Ottica a Filamento Singolo per TFC-1000S10D3, TFC-1000S10D5, TFC-1000S40D3, TFC-1000S40D5, TFC-1000MGB/ TFC-1000MGA con TEG-MGBS10D35/TEG-MGBS40D35 moduli

## **Installazione del convertitore di fibra ottica nel Telaio**

1. Svitare la copertura dell'alloggiamento desiderato sul telaio.



2. Svitare la vite a testa zigrinata e rimuovere il convertitore di fibre dal case in metallo.



3. Far scivolare il media converter in uno slot libero e serrare la vite a testa zigrinata.



### 3. LED e switch DIP

LEDs			
LED	Color	Sequenza	Funzione
PWR (Power)	Verde	Solido	Dispositivo acceso
	Spento	n/a	Dispositivo spento
LINK/ ACT	Verde	Solido	Connessione (per porta) (Full Duplex) 2000 Mbps
	Verde	Lampeggiante	Trasmissione/ricezione dati (per porta) (Full Duplex) 2000 Mbps
	Spento	n/a	Il collegamento è disconnesso

Dip Switches		
Switch	Azione	Funzione
1	Acceso	Modalità TX Forced Mode
	Spento	Modalità TX Auto-Negotiation
2	Scceso	LLR Abilitato
	Spento	LLR Disabilitato

#### **Nota:**

1. Dopo aver modificato le impostazioni dello Switch DIP, spegnere e riaccendere il Convertitore.
2. La sigla LLR corrisponde a Link Loss Return (Ritorno della Perdita di Collegamento). Quando LLR è abilitato, il trasmettitore della porta in fibra ottica si disattiva se il suo ricevitore non riesce a rilevare un link di ricezione valido. Se uno dei conduttori ottici è difettoso, il convertitore in fibra ottica con LLR abilitato restituisce una condizione di assenza di collegamento al suo interlocutore di collegamento. LLR viene utilizzato per rilevare i problemi di collegamento solo sulla porta di fibra. Se LLR è abilitato su un convertitore di fibra, il convertitore di fibra opposto deve avere LLR disabilitato.

# 1. Что нужно сделать в самом начале

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## Содержимое упаковки

- Волоконный преобразователь
- Руководство по быстрой установке на нескольких языках
- Блок питания

## Минимальные требования

- Достаточно прохладное и сухое место
- 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 Gigabit Ethernet 1000 Мбит/с
- Волоконные кабели – многомодовые или одномодовые
- Сетевой кабель Ethernet категории 5e или выше

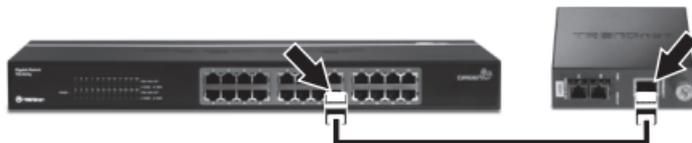
## Опционное Оборудование

- 19" стойка стандарта
- Шасси TFC-1600
- Модуль Mini-GBIC (напр., EG-MGBSX, TEG-MGBS10, TEG-MGBS40, TEG-MGBS80) для гнезд Mini-GBIC (только TFC-1000MGB/TFC-1000MGA)

## 2. Установка оборудования

### Установка 2 отдельных преобразователей

1. Подключите кабель RJ-45 Ethernet от порта Ethernet на преобразователе к порту Ethernet на коммутаторе (напр., TEG-S24Dg).



2. Присоедините волоконный кабель к преобразователю.



3. Присоедините силовой адаптер к задней панели преобразователя.



### **Примечание:**

1. Для устройства TFC-1000MSC / S20/ S50 / S70 кабели TX и RX на разных концах соединения подключены в обратном порядке.
2. Кабели
  - a. Многомодовый оптический кабель: TFC-1000MSC, Устройство TFC-1000MGB/TFC-1000MGA с модулем TEG-MGBSX
  - b. Одномодовый оптический кабель: TFC-1000S20, TFC-1000S50, TFC-1000S70, Устройство TFC-1000MGB с модулем TEG-MGBS10/TEG-MGBS40/TEG-MGBS80
  - c. Одножильный оптический кабель: TFC-1000S10D3, TFC-1000S10D5, TFC-1000S40D3, TFC-1000S40D5, Устройство TFC-1000MGB/ TFC-1000MGA с модулем TEG-MGBS10D35/TEG-MGBS40D35

## Установка преобразователя в шасси

1. Отверните винты на крышке нужного отсека шасси.



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



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



### 3. Световые индикаторы и DIP-переключатели

Световые индикаторы			
Световые индикаторы	Цвет	Последовательность	Функция
PWR (Питание)	Зеленый	Горит постоянно	Питание включено
	Выключено		Питание выключено
LINK/ACT	Зеленый	Горит постоянно	2000 Мбит/с (дуплексный режим)
	Зеленый	Мигание	2000 Мбит/с (дуплексный режим) Хорошее качество соединения
	Выключено		Линия связи отключена

DIP-переключатели (двухпозиционные переключатели)		
Переключатель	Действие	Функция
1	Вкл	TX Forced Mode (Вынужденный режим)
	Выключено	TX Auto-Negotiation (Автосогласование)
2	Вкл	LLR Enable (Включить)
	Выключено	LLR Disable (Отключить)

#### Примечание:

1. После изменения настроек DIP-переключателя, выключите и включите волоконно-оптический преобразователь.
2. Аббревиатура LLR обозначает Link Loss Return (Возврат потери соединения). Когда функция LLR включена, передатчик волоконно-оптического порта отключается в том случае, если его приемник не может выявить действующую принимающую линию связи. Если один из оптических проводников вышел из строя, карта со включенной функцией LLR возвращает сигнал об отсутствии линии связи своей паре. Функция LLR используется только для выявления проблем соединения с волоконно-

# 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

TRENDNET®

## Manufacturer's Name and Address

TRENDnet, Inc.  
20675 Manhattan Place  
Torrance, CA 90501 USA

Zwolsestraat 156 2587 WB  
The Hague The Netherlands



## Product Information

**Model Number:** TFC-1000S50 / TFC-1000S70 / TFC-1000S10D3 /  
TFC-1000S40D3 / TFC-1000S60D3 / TFC-1000S10D5 /  
TFC-1000S40D5 / TFC-1000S60D5 / TFC-1000MSC /  
TFC-1000MGA / TFC-1000S20

**Product Name:** Intelligent 1000Base-T to 1000Base-LX Single-Mode SC Fiber Converter (50km/31miles) /  
Intelligent 1000Base-T to 1000Base-LX Single-Mode SC Fiber Converter (70km/43.5 miles) /  
Intelligent 1000Base-T to 1000Base-LX Dual Wavelength Single Mode SC Fiber Converter (10km/6.2miles) /  
Intelligent 1000Base-T to 1000Base-LX Dual Wavelength Single Mode SC Fiber (40 km / 24.85 miles) /  
Intelligent 1000Base-T to 1000Base-LX Dual Wavelength Single Mode SC Fiber (60 km / 37.3 miles) /  
Intelligent 1000Base-T to 1000Base-LX Dual Wavelength Single Mode SC Fiber Converter (10km/6.2miles) /  
Intelligent 1000Base-T to 1000Base-LX Dual Wavelength Single Mode SC Fiber (40 km / 24.85 miles) /  
Intelligent 1000Base-T to 1000Base-LX Dual Wavelength Single Mode SC Fiber (60 km / 37.3 miles) /  
Intelligent 1000Base-T to 1000Base-SX Multi-Mode SC Fiber Converter /  
100/1000BASE-T to SFP Media Converter /  
Intelligent 1000Base-T to 1000Base-LX Single-Mode SC Fiber Converter (20km/12.4miles)

# Declaration of Conformity

TRENDnet<sup>®</sup>

**Trade Name:** TRENDnet

TRENDnet hereby declare that the product is in compliance with the essential requirements and other relevant provisions under our sole responsibility.

**Safety** EN 62368-1: 2014 + A11:2017

**EMC** EN 55032:2015+AC:2016 (CISPR32:2015/COR:2016) (Class A)  
AS/NZS CISPR32:2015  
EN 61000-3-2:2014  
EN 61000-3-3:2013  
EN 55024:2010+A1:2015

**Directives:** EMC Directive 2014/30/EU  
RoHS 3 Directive 2015/863/EU  
RoHS Directive 2011/65/EU  
WEEE Directive 2012/19/EU  
REACH Regulation (EC) No. 1907/2006  
Low Voltage Directive 2014/35/EU  
Ecodesign Directive (EC) 2019/1782

This product is herewith confirmed to comply with the Directives.

Person responsible for this declaration.

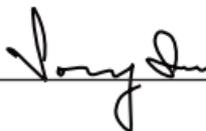
Place of Issue: Torrance, California, USA

Date: June 24, 2021

Name: Sonny Su

Title: VP of Technology

Signature: \_\_\_\_\_



## Coordonnées du fournisseur:

TRENDnet, Inc.  
20675 Manhattan Place  
Torrance, CA 90501 USA

Zwolsestraat 156 2587 WB  
The Hague The Netherlands



## Modèle:

**Détails du produit:** TFC-1000S50 / TFC-1000S70 / TFC-1000S10D3 /  
TFC-1000S40D3 / TFC-1000S60D3 / TFC-1000S10D5 /  
TFC-1000S40D5 / TFC-1000S60D5 / TFC-1000MSC /  
TFC-1000MGA / TFC-1000S20

**Nom du produit:** Convertisseur fibre SC mono-mode intelligent 1000Base-T vers 1000Base-LX (50km/31miles) /  
Convertisseur fibre SC mono-mode intelligent 1000Base-T vers 1000Base-LX (70km/43.5miles)  
Convertisseur fibre monomode 1000Mbps T vers 1000Base-FX (10km / 6.2 miles)  
Convertisseur fibre SC monomode intelligent 1000Base-T vers 1000Base-LX à double longueur d'onde (40km / 24,85 miles) /  
Convertisseur fibre SC monomode intelligent 1000Base-T vers 1000Base-LX à double longueur d'onde (60 km / 37.3 miles)/  
Convertisseur fibre SC monomode intelligent 1000Base-T vers 1000Base-LX à double longueur d'onde (10km / 6.2 miles) /  
Convertisseur fibre SC monomode intelligent 1000Base-T vers 1000Base-LX à double longueur d'onde (40 km / 24.85 miles)/  
Convertisseur fibre SC monomode intelligent 1000Base-T vers 1000Base-LX à double longueur d'onde (60 km / 37.3 miles) /  
Convertisseur fibre multimode SC intelligent 1000Base-T vers 1000Base-SX /  
Convertisseur média 100/1000 Base-T vers SFP /  
Convertisseur fibre mono-mode 1000Base-T vers 1000Base-LX (20Km) avec connecteur de type SC

# Déclaration de conformité

TRENDNET®

**Nom Commercial:** TRENDnet

TRENDnet déclare par la présente que le produit est conforme aux exigences essentielles et aux autres dispositions pertinentes de la Directive en vertu de notre seule responsabilité.

<b>Sécurité</b>	EN 62368-1: 2014 + A11:2017
<b>CEM</b>	EN 55032:2015+AC:2016 (CISPR32:2015/COR:2016) (Class A) AS/NZS CISPR32:2015 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 55024:2010+A1:2015
<b>Directives:</b>	Directive CEM 2014/30/UE Directive 2015/863/UE (RoHS 3) Directive RoHS 2011/65/UE Directive WEEE 2012/19/UE REACH Règlement (CE) N° 1907/2006 Directive Basse Tension 2014/35/UE Directive écoconception (CE) 2019/1782

Ce produit est conforme à la directives suivante.

Personne responsable de cette déclaration.

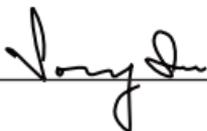
Lieu de délivrance: Torrance, California, USA

Date: 24 Juin, 2021

Nom: Sonny Su

Position: Vice-président de Technologie

Signature: \_\_\_\_\_



# Declaration of Conformity

TRENDNET®

## Manufacturer's Name and Address

TRENDnet, Inc.  
20675 Manhattan Place  
Torrance, CA 90501 USA



Authorized Representative:  
Office: +44 (0) 1635 887 399  
Unit 4 Rivermead Business Park,  
Pipers Way, Thatcham, RG19 4EP England

## Product Information

**Model Number:** TFC-1000S50 / TFC-1000S70 / TFC-1000S10D3 /  
TFC-1000S40D3 / TFC-1000S60D3 / TFC-1000S10D5 /  
TFC-1000S40D5 / TFC-1000S60D5 / TFC-1000MSC /  
TFC-1000MGA / TFC-1000S20

**Product Name:** Intelligent 1000Base-T to 1000Base-LX Single-Mode SC Fiber Converter (50km/31miles) /  
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Intelligent 1000Base-T to 1000Base-LX Dual Wavelength Single Mode SC Fiber Converter (10km/6.2miles) /  
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# Declaration of Conformity

TRENDNET®

**Trade Name:** TRENDnet

TRENDnet hereby declare that the product is in compliance with the essential requirements and other relevant provisions under our sole responsibility.

**Safety** EN 62368-1: 2014 + A11:2017

**EMC** EN 55032:2015+AC:2016 (CISPR32:2015/COR:2016) (Class A)  
AS/NZS CISPR32:2015  
EN 61000-3-2:2014  
EN 61000-3-3:2013  
EN 55024:2010+A1:2015

**Directives:** Electromagnetic Compatibility Regulations 2016  
The Restriction of the Use of Certain Hazardous Substances in  
Electrical and Electronic Equipment Regulations 2012  
The Waste Electrical and Electronic Equipment Regulations 2013  
(as amended)  
The REACH Enforcement Regulations 2008 (as amended)  
Electrical Equipment (Safety) Regulations 2016  
The Ecodesign for Energy-Related Products and Energy Information  
(Amendment) (EU Exit) Regulations 2019

This product is herewith confirmed to comply with the Directives.

Person responsible for this declaration.

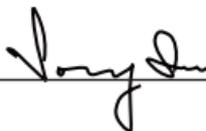
Place of Issue: Torrance, California, USA

Date: June 24, 2021

Name: Sonny Su

Title: VP of Technology

Signature: \_\_\_\_\_



## Certifications

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.
- (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 your Local Authority or Retailer for recycling advice.

- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- FCC Caution: Any changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

## Technical Support

If you have any questions regarding the product installation, please contact our Technical Support.

Toll free US/Canada: **1-866-845-3673**

Regional phone numbers available at [www.trendnet.com/support](http://www.trendnet.com/support)

## TRENDnet

20675 Manhattan Place  
Torrance, CA 90501  
USA

Applies to PoE Products Only: This product is to be connected only to PoE networks without routing to the outside plant.

## 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 características del adaptador de alimentación necesario para su funcionamiento. El uso de un adaptador distinto al mencionado puede producir daños físicos y/o daños al equipo conectado. El adaptador de alimentación debe operar con voltaje y frecuencia de la energía eléctrica domiciliar existente en el país o zona de instalación.

## Power supply connected caution

The equipment power supply cord shall be connected to a socket-outlet with earthing connection.

## Advertencia

Le cordon d'alimentation de l'appareil doit être raccordé à une prise de courant avec mise à la terre.

If the Optical Transceiver doesn't ship with the unit, the user manual shall have description as below or equivalent: "This product is intended to be use with a UL Listed Optical Transceiver product, Rated DC3.3V, Laser Class I."

## Wall-mounted instructions

The Unit has two wall-mount slots on its bottom panel. Before you begin, make sure you have two screws that indicate a diameter measurement of 0.265748 inches (6.75mm).

- (1) Determine where you want to mount the modem.
- (2) Maneuver the modem so the wall-mount slots line up with the two screws.
- (3) Place the wall-mount slots over the screws and slide the modem down until the screws fit snugly into the wall-mount slots.
- (4) Screw type P3.5 x 16mm x 2

## Product Warranty Registration

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