100Base SC Fiber PCIe Adapter
Low Profile 100Base SC Fiber PCIe Adapter

TE100-ECFX / TE100-ECFXL
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Product Overview

The 100Base SC Fiber PCIe Adapter, model TE100-ECFX, or the Low Profile 100Base SC Fiber PCIe Adapter, Model TE100-ECFXL, provides a reliable high performance connection from a PC or server to a Multi-Mode SC-type fiber connection for distances of up to 2 kilometers (1.2 miles).

Full-Duplex technology generates data rates of up to 200 Mbps. Supports Wake-on-LAN, remote wake-up, 802.1p priority encoding, and 802.1Q VLAN tagging. Compatible with Microsoft Windows 8, Windows 7, Server 2008, Unix, and Linux operating systems.

Package Contents

TE100-ECFX package includes:
- 1 x TE100-ECFX
- Quick Installation Guide
- CD-ROM (Driver & User’s Guide)

TE100-ECFXL package includes:
- 1 x TE100-ECFXL
- Quick Installation Guide
- CD-ROM (Driver & User’s Guide)

Features

- 100Base SC-type Multi-Mode fiber to PCIe adapter
- Supports fiber connections for distances of up to 2 km (1.2 miles)
- Wake-on-LAN, 802.1p, and 802.1Q support
- Compatible with Windows 8, Windows 7, Windows Server 2008, Unix, and Linux operating systems
Product Hardware Features

**TE100-ECFX**

- **PCI Express Connector**: Connect the PCI Express card into computer’s PCIe slot.
- **Fiber Connector**: Connect one end of the fiber cable to adapter’s fiber connector and connect the other end to the fiber network.
- **LED Indicators**
  - **LNK/ACT (Link/Activity)**: Steady (green) - Network connection established. Blinking (green) - Transmitting or receiving data. Off - No connection/activity. ACT stands for ACTIVITY.
  - **SPD (Speed)**: Steady (green) - 100Mbps. Off - 10Mbps.

**TE100-ECFXL**

- **Low Profile Bracket**: used for low profile computer
**Application Diagram**

**100Base SC Fiber PCIe Adapter**
(TE100-ECFX)

**Internet**

Modem
Router

TEG-240WS

TFC-1600

TFC-110MSC

Fiber Connection

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**Installation - Hardware**

**Adapter**

1. Power off the computer
2. Remove any metal object from your hand and wrists to prevent shocks
3. Remove the cover from your computer’s towel
4. Locate an empty PCI Express slot and remove the corresponding back plate. Save the screws for use in step 6.
5. Carefully insert the PCI Express adapter into the slot and ensure the adapter is firmly seated in the slot.
6. Secure the PCI Express adapter with the screws that you saved in step 4.
7. Replace the PC cover
Fiber Cable

This section describes how to connect the TE100-ECFX or TE100-ECFXL to a 100 Mbps fiber-based Ethernet network, which contributes to its optimal performance.

Please ensure that you installed the TE100-ECFX or TE100-ECFXL into the computer before installing the driver.

1. Remove the protective rubber covers from the TE100-ECFX or TE100-ECFXL.

2. Connect one end of the fiber cable to TE100-ECFX or TE100-ECFXL and then connect the other end of the fiber cable to the fiber converter or fiber port into the fiber network.

   Note: The fiber cable comes with a pair. Some of them may mark as Transmitter (TX) and Receiver (RX), some of them may have color coded or have letters on each end. Make sure that you have one end (TX) of the fiber cable connects to the TX port of the TE100-ECFX or TE100-ECFXL and have the other end of the (TX) connects to the fiber’s network device’s RX port as example showed below.

   3. Turn on the computer.

   4. Windows will automatic install the driver.

   5. Check the LNK (link) LED on the TE100-ECFX or TE100-ECFXL. The LNK LED will be steady on to indicate the network connection is establish.

Cabling Requirements

For connector type, cabling requirements, and maximum segment distance when connecting the PCI Express Ethernet Adapter to your network, please refer to the following table. The table listed below showed the type of cable that connected to TE100-ECFX or TE100-ECFXL PCI-e adapter. You may also choose the proper fiber cable that suitable for your network usage.

<table>
<thead>
<tr>
<th>Connector Type on Fiber Adapter</th>
<th>Wavelength of 1300nm Fiber Optic required</th>
<th>Maximum Distance (* full-duplex)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC</td>
<td>Multi-mode, 50/125 µm</td>
<td>550m</td>
</tr>
<tr>
<td>SC</td>
<td>Multi-mode, 62.5/125 µm</td>
<td>2 km</td>
</tr>
</tbody>
</table>

<Note>

The maximum node-to-node network distance is in full-duplex operation.
Installation - Software

Driver

Windows 8 / 7 / Vista / 2008 Server

The CD-ROM includes the latest drivers for TE100-ECFX or TE100-ECFXL. It is highly recommend that you install the drivers from the CD-ROM.

1. Insert the Installation CD-ROM into your computer’s CD-ROM drive to initiate the Auto-Run program.

2. Click Install Drivers

3. Click Next
4. Click **Next**

5. Click **Finish**

**Windows 2003 / XP**

1. Insert the Installation CD-ROM into your computer’s CD-ROM drive to initiate the Auto-Run program.

2. Click the **Install Drivers**
3. Click **Next**

![Install Wizard](image1)

4. Click **Install**

![Ready to Install](image2)

5. Click **Finish**

![Finish](image3)
Diagnostic Utility

The Diagnostics Utility is a Windows platform application. It provides General Information, VLAN ID settings, Driver property settings, Diagnostics function, Statistics, Cable analysis, and Wake On LAN function.

1. Insert the Installation CD-ROM into your computer’s CD-ROM drive to initiate the Auto-Run program.

2. Click Diagnostic Utility

3. Click Next
4. Click **Install**

![Install Window](image1)

5. Wait while the Diagnostic Utility install on your computer

![Install Status](image2)

6. The diagnostic utility will automatically pop up the installation has finished.

![Utility Window](image3)

7. You can go to Programs → Realtek → Realtek Ethernet Diagnostic Utility to launch the Diagnostics Utility manually.

![Launch Utility](image4)
Configuration of Diagnostic Utility

General
This page displays general information about the selected network adapter.

VLAN
This page shows information about VLANs on current selected network adapter. User can add or remove VLAN here. The user can change the VLAN ID of existing VLAN.

Driver
This page displays driver information of the selected network adapter.

Driver -> Advanced Setting
This page displays working parameters for this network adapter. User can modify these parameters here.
Diagnostics
This page performs hardware tests on selected network adapter.

Statistics
This page shows statistics of the selected network adapter, including throughput, number of good packet sent / received, and number of error packet sent / received.

Diagnostics -> Send and Receive
Two computers with adapters in the same LAN can perform send & receive experiment with broadcast packet here.

Cable
This page estimates the length of the network (RJ-45) cable that is connected to the network adapter. This feature is not supported on the TE100-ECFX, TE100-ECFXL.
Wake On LAN
This page provides two ways for the user to wake up a PC in standby or hibernate mode via the selected network adapter. A computer can be waked up only if related configurations in BIOS and the network adapter are enabled.

EEE Status
This page shows information about EEE status. User can change the current LP status to minimize system power consumption.

Technical Specifications

<table>
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<tr>
<th>Hardware</th>
<th></th>
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<tr>
<td><strong>Standards</strong></td>
<td>IEEE 802.3u 100Base-FX</td>
</tr>
<tr>
<td></td>
<td>IEEE 802.3x, IEEE 802.1Q, IEEE 802.1p</td>
</tr>
<tr>
<td><strong>Network Media</strong></td>
<td>Multi-mode fiber optic cable 50/125 µm up to 550m or 62.5/125 µm up to 2km</td>
</tr>
<tr>
<td><strong>Interface</strong></td>
<td>PCI Express, SC-type slot</td>
</tr>
<tr>
<td><strong>Power Consumption</strong></td>
<td>Max. 2 watts</td>
</tr>
<tr>
<td><strong>Diagnostic LED</strong></td>
<td>Speed, Link/Activity</td>
</tr>
<tr>
<td><strong>Supported OS</strong></td>
<td>Windows 8 (32/64-bit) / 7 (32/64-bit) / Vista (32/64-bit) / XP (32/64-bit), Windows Server 2003, 2008 Linux Kernel 2.4.x / 2.6.x</td>
</tr>
<tr>
<td><strong>Data Rate</strong></td>
<td>100 Mbps (half-duplex)</td>
</tr>
<tr>
<td></td>
<td>200 Mbps (full-duplex)</td>
</tr>
<tr>
<td><strong>Dimension</strong></td>
<td>TE100-ECFX : 117 x 107 x 57 mm (4.6 x 4.2 x 2.2 in)</td>
</tr>
<tr>
<td></td>
<td>TE100-ECFXL: 80 x 107 x 57 mm (3 x 4.2 x 2.2 in.)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>TE100-ECFX : 45g (1.6 oz.)</td>
</tr>
<tr>
<td></td>
<td>TE100-ECFXL: 40 g (1.4 oz.)</td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td>Operating: 0°C ~ 50°C (32°F ~ 122°F)</td>
</tr>
<tr>
<td></td>
<td>Storage: -10°C ~ 70°C (14°F ~ 158°F)</td>
</tr>
<tr>
<td><strong>Humidity</strong></td>
<td>Max. 95% (non-condensing)</td>
</tr>
<tr>
<td><strong>Certifications</strong></td>
<td>CE, FCC</td>
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Troubleshooting

1. **Windows does not recognize my new hardware. What could I do?**

   First, verify if your computer meets the system requirement on **Technical Specification section**.
   Second, access your device manager to make sure the adapter is installed properly.
   - To access the device manager on Windows 8/7/ Vista, right-click Computer, click Properties and then click Device Manager.
   - To access the device manager on Windows XP, right-click My Computer, click Properties, click the Hardware tab, and then click Device Manager.

   Third, if the device manager fails to recognize the presence of a new networking adapter, verify that the network adapter is firmly seated in the PCIe slot.

2. **Windows recognizes my new hardware, but I’m unable to connect to my Network. What should I do?**

   There might be a problem with the fiber cable connection. Make sure that you have the fiber cable connected correctly as describe on the **Fiber Cable** section.

   Another possible problem may be that the network device such as Fiber Converter is not functioning properly. Please confirm the power for the devices are well connected and functioning properly.

3. **Why the Windows has automatic install the driver and I need to install the diver from the CD-ROM again.**

   Windows has built-in drivers. However, the CD-ROM have update driver to support the adapters.

4. **What is the maximum distance that is supported by the adapter?**

   The adapter supports multi-mode fiber optic cable with the following distance.
   - 50/125 µm up to 550m
   - 62.5/125 µm up to 2km
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.

**TEG-ECFX, TE100-ECFXL – 3 Years Limited Warranty**

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

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