



User's Guide

TEG-ECTX
TEG-ECSX
H/W: V1

Preface

Thank you for purchasing TEG-ECTX and TEG-ECSX. This manual describes how to install and use the PCI Express Gigabit Adapter. The PCI Express Gigabit Adapter allows you to use either RJ-45 or fiber cable to connect to network.

The TEG-ECTX/TEG-ECSX is a high performance network adapter that supports advanced management and power savings functionality for system administrators. The TEG-ECSX has SC type port allow you connects Multi-Mode fiber devices at distances of up to 550m (1804ft.)

Full-Duplex technology generates data rates of up to 2Gbps over a motherboard's high-speed PCI Express Bus architecture. Jumbo Frame support further optimizes throughput performance.

Supports SNMP v1, Pre-Boot Execution Environment (PXE) 2.1, and Wake-on-LAN (WOL, for TEG-ECTX only). Optimize network performance with VLAN tagging and Layer 2 Priority Tagging. Optimizes power consumption with advanced Configuration Power Management Interface 2.0 (ACPI) technology.

Packaging Contents

When you unpack the product package, you shall find the items listed below. Please inspect the contents, and report any apparent damage or missing items immediately to local authorized reseller.

- ***TEG-ECTX or TEG-ECSX***
- ***Quick Installation Guide***
- ***CD-ROM (Drivers, Utility & User's Guide)***

Features

- ◆ Provide
 - One 10/100/1000BaseTX port, or
 - One 1000BaseSX port
- ◆ RJ-45 connection:
 - Auto-negotiate 10/100/1000Mbps and full/half duplex
 - Auto MDI/MDIX
 - Compliant with IEEE 802.3 10BaseT, IEEE 802.3u 100BaseTX, IEEE 802.3ab 1000BaseT
- ◆ Fiber connections:
 - SC type Multi-Mode fiber connection
 - Compliant with IEEE 802.3z 1000Base SX
- ◆ PCI Express 1.0a compliant
- ◆ Supports IEEE802.1p Layer 2 Priority Encoding
- ◆ Supports IEEE802.1Q VLAN Tagging
- ◆ IEEE 802.3x full duplex flow control
- ◆ Supports Microsoft NDIS5 Checksum Offload (IP, TCP, UDP) and LargeSend Offload
- ◆ Advanced Configuration Power Management Interface (ACPI) 2.0
- ◆ Supports PCI Message Signaled Interrupt (MSI)
- ◆ 48K Bytes buffer memory
- ◆ Two LEDs: LNK (link) (Green), ACT (activity) (Yellow)
- ◆ 0 °C to 45°C (32°C to 113°C) operating temperature range

Driver Support

The Adapter supports a wide range of drivers for commonly used network operating systems:

- Microsoft Windows 2000 / 2000 Server / XP (32/64-bit) / 2003 Server/ Vista (32/64-bit)
- Linux 2.4.x, 2.6.x
- Novell Netware 3.12/4.1/4.11/5.x/6.x
- FreeBSD 5.4, 6.0
- Unix Ware 7.1.3, 7.1.4, OPEN Server 6.0

LEDs

- **LNK** Link
- **ACT** Activity

LEDs	Status	Indication
LNK (Green)	Steady	A valid network connection established. LNK stands for LINK.
	Off	No network connection.
ACT (Yellow)	Flashing	Transmitting or receiving data. ACT stands for ACTIVITY.
	Off	No activity.

Software Installation

Step 1: Insert the Driver CD-ROM into your computer's CD-ROM Driver

Step 2: Click **Install Driver**, choose the driver which suitable for your operation system.

Step 3: Follow the **InstallShield Wizard** instructions

Step 4: Shutdown your computer and following the hardware installation procedure.

Hardware Installation

Step 1: Make sure your computer is off.

Step 2: Remove any metal decorations from your hands and wrists.

Step 3: Remove the cover from your computer.

Step 4: Locate an empty bus mastering PCI Express slot and insert the PCI Express Adapter firmly into an available PCI Express Slot.

Step 5: Turn **ON** the computer and wait until the Windows desktop appears.

Step 6: Replace the cover back to your computer and follow the next session “**Connecting to Your Network**” procedure.

Connecting to your Network

For TEG-ECTX

- Step 1:** Connect a Cat5e Cable from the computer to an available Ethernet port on your router or switch.
- Step 2:** When the cable is properly connected to the devices, turn the power on.
- Step 3:** Check the LNK (Link) LED. The LED will be blinking when the PCI Express Gigabit Ethernet Adapter is receiving a good link signal from the connected device

For TEG-ECSX

- Step 1:** Connect a SC-type multi-mode cable from the TEG-ECSX to a Gigabit fiber converter.
- Step 2:** Connect an Ethernet cable from the fiber converter to a Gigabit Ethernet port on your Gigabit switch.
- Step 3:** When the cable is properly connected to the devices, turn the power on.
- Step 4:** Check the LNK (Link) LED. The LED will be blinking when the PCI Express Gigabit Ethernet Adapter is receiving a good link signal from the connected device

Note: Make sure the TX and RX cables are reversed on the opposing connection.

Cabling Requirement

For connector type, cabling requirements, and maximum segment distance as list below.

Speed	Media	Port Speed Half/Full Duplex	Cable	Distance
10BaseT	RJ-45	10/20 Mbps	UTP/STP Cat 3, 4, or 5	100M
100BaseTX	RJ-45	100/200 Mbps	UTP/STP Cat 5	100M
1000BaseT	RJ-45	2000 Mbps	UTP/STP Cat 5e, 6	100 M

Fiber Type	Wavelength of 850nm Fiber Optic required	Maximum Distance (* full-duplex)
SC	62/125 μm (Multi-Mode)	550 m
	50/125 μm (multi_mode)	220 m

<Note>

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

Diagnostics Utility

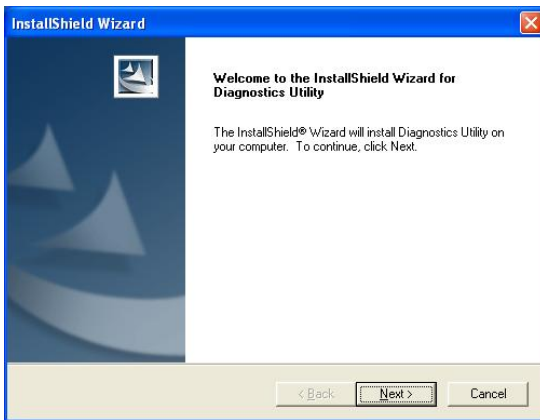
The diagnostics utility is a Windows platform application. It provides general information, VLAN ID setting, Driver property settings, Diagnostics functions, Statistics, Cable analysis, and Wake on LAN function.

Diagnostics Utility Installation

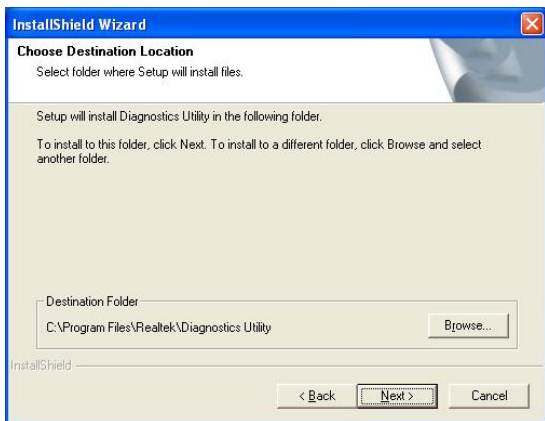
Step 1: Insert the Driver CD-ROM into your computer's CD-ROM Driver

Step 2: Click **Diagnostics Utility** button on the CD-ROM, choose the utility which suitable for your operation system.

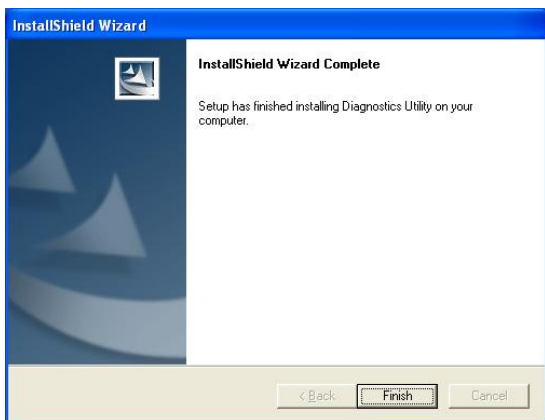
Step 3: Click Next



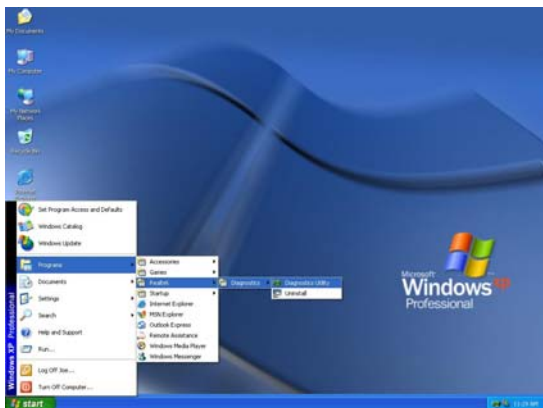
Step 4: Click **Next** to continue or click **Browse** to choose an alternate location.



Step 5: Click *Finish* to exit the installation.



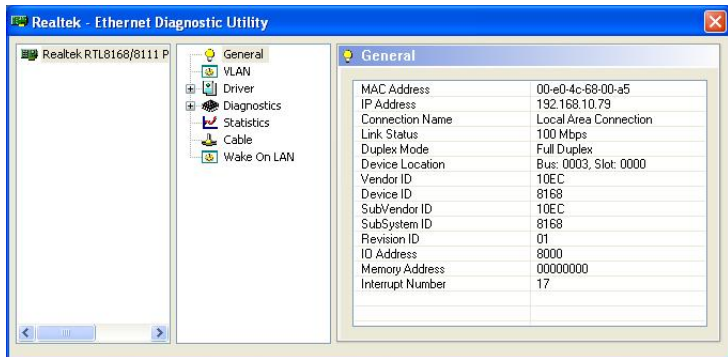
Step 6: Click Start → Program → Realtek → Diagnostics to launch the Diagnostics Utility.



Diagnostics Utility Configuration

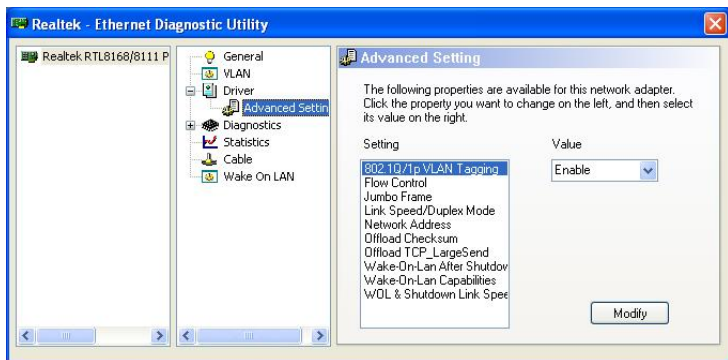
General

This page shows the general information of the selected network adapter.



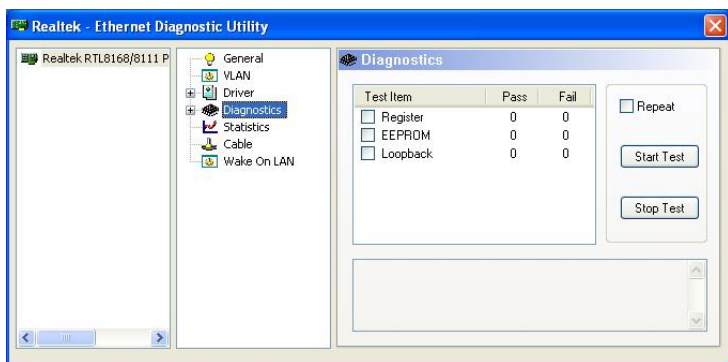
VLAN

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



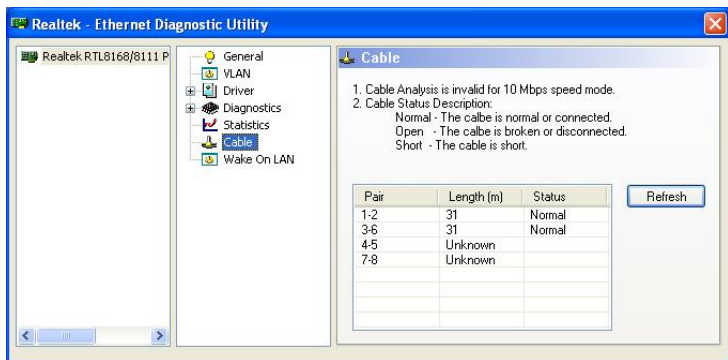
Diagnostics

This page performs hardware tests of the selected network adapter.



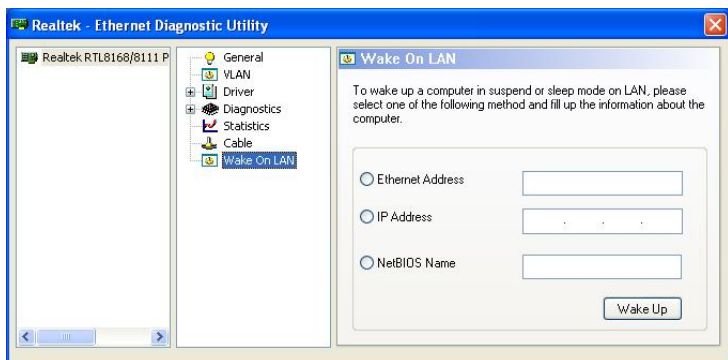
Send and Receive

Two computers with its own adapter in the same LAN can perform send & receive experiment with broadcast packet here.



Wake On LAN (for TEG-ECTX only)

This page shows three ways to wake up a computer in suspend or sleep mode. 1) Ethernet Address 2) IP Address 3) NetBIOS Name. A computer can be waked up only if related configurations in BIOS and the network adapter are enabled.



Specifications

Standards	10/100/1000BaseTX: IEEE802.3 10BaseT IEEE802.3u 100BaseTX IEEE802.3ab 1000BaseT 1000BaseSX/LX: IEEE802.3z 1000BaseSX/LX
Speed	10Base T: 10/20Mbps (half/full Duplex) 100Base TX: 100/200Mbps(half/full-duplex) 1000Base T: 2000Mbps (full-duplex) 1000BaseSX: 2000Mbps (full-duplex)
Performance	14,880pps for 10Mbps 148,810pps for 100Mbps 1,488,100pps for 1000Mbps
Cable	10BaseT: UPT/STP Cat 3, 4, or 5 100BaseTX: UTP/STP Cat. 5 1000BaseT: UTP/STP Cat. 5e, 6 Fiber: 62/125 μ m multi-mode fiber-optic cable, up to 550 m, wavelength 850nm 50/125 μ m multi-mode fiber-optic cable, up to 220 m, wavelength 850nm
LEDs	LNK (Link) (Green) ACT (Activity) (Yellow)
Dimensions	137x 120 x 22 mm (5.40x 4.73 x 0.87 inches.
Net Weight	80g (0.18lb.) approx.
Power Consumption	3.3VDC, 727mA, 2.4W Max.
Temperature Operation	0°C to 45° C (32°F to 113°F)
Storage	-10°C to 70°C (14°F to 158°F)
Humidity	10%-95% non-condensing
Emissions	FCC part 15 Class B, CE Mark Class B

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-ECTX/TEG-ECSX– 5 Years 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 part, deliver to customer an equivalent product or part to replace the defective item, or refund to customer the purchase price paid for the defective product. 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 by 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.

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

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



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Product Warranty Registration

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