



OfficeConnect 10/100
Network Interface Card
Quick Start Guide
3CSOHO100B-TX

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Introduction

The 3Com OfficeConnect 10/100 Network Interface Card is a dual-speed Fast Ethernet card for PCI local bus compliant computers. A true plug-and-play device, this card is auto-configurable upon power up and also supports auto-negotiation to automatically select the optimum speed and communication mode of an attached device.

The 3Com OfficeConnect 10/100 NIC complies with ACPI and OnNow PC98/PC99, and also supports Remote LAN Wakeup. A WOL-enabled computer can be managed remotely. Software can be loaded and updated, configurations changed, data backed up and inventory checked, all from a central location. See "Remote LAN Wakeup" on page 6 for more information.

Package Checklist

3Com OfficeConnect 10/100 NIC's package includes:

- One 3Com OfficeConnect 10/100 Network Interface Card (3CSOHO100B-TX)
- One EtherCD:
 - Drivers for the OfficeConnect 10/100 NIC
 - 3Com Connection Assistant
 - Installation Guides
- This Quick Start Guide

Please register online at:

<http://support.3com.com/registration/frontg.pl>

for 30 days of free telephone technical support.

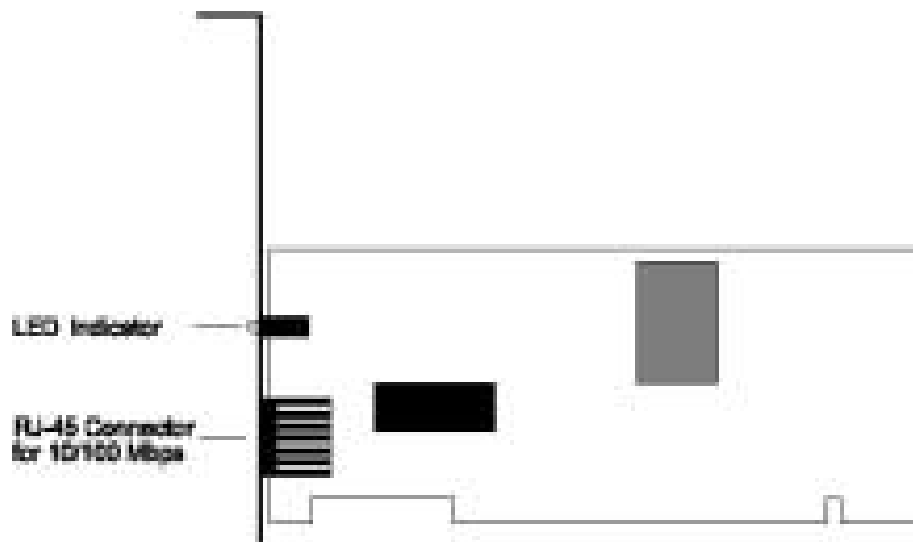
Please inform your dealer if there are any incorrect, missing or damaged parts. If possible, retain the carton, including the original packing materials. Use them again to repack the product in case there is a need to return it for repair.

Hardware Description

The 3Com OfficeConnect 10/100 NIC is equipped with:

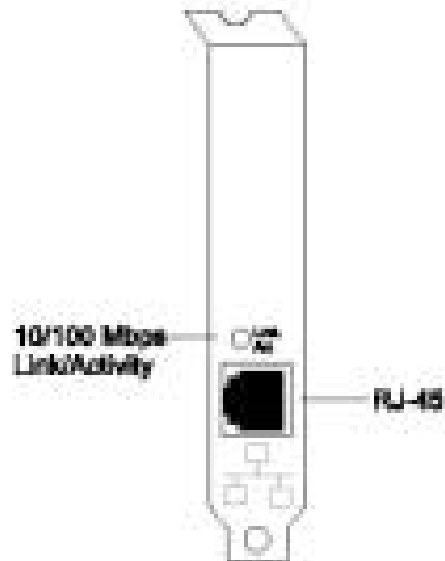
- RJ-45 Connector for 10/100 Mbps
- 1 LED indicator

The components of the 3Com OfficeConnect 10/100 NIC are shown in the figure below:



LED Functions

The following figure and table describe the operation of the 3Com OfficeConnect 10/100 NIC status LED:



Status	Description
On Amber	Indicates a valid 10BASE-T link
Flashing Amber	Indicates 10 Mbps network activity
On Green	Indicates a valid 100BASE-TX link
Flashing Green	Indicates 100 Mbps network activity

Remote LAN Wakeup

Remote LAN Wakeup capability is a key feature of a centrally managed PC environment. This technology enables networked PCs to be “woken up” from a sleep or powered-off state so they can be managed from a central location, at any time of the day or night.

To employ Remote LAN Wakeup, three elements are required:

- Desktop management software that can send a “wake-up” packet to a PC.
- A Wake-On-LAN enabled PC motherboard that can supply low-level auxiliary power to a network card when the PC is powered off.
- A Wake-On-LAN network card that can recognize a wake-up packet and signal the PC to power up.

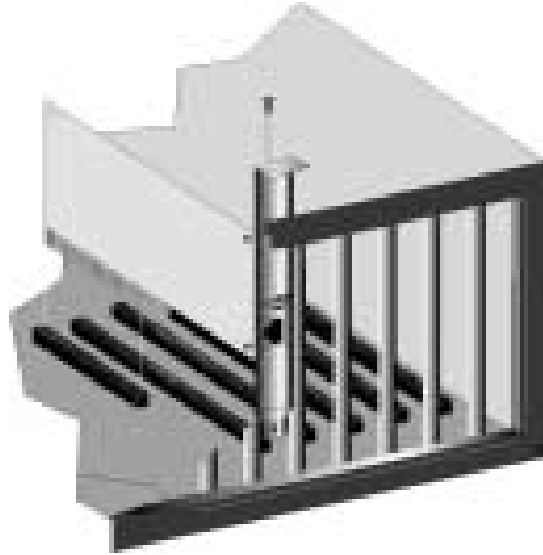
A Wake-On-LAN enabled PC is never completely powered off, it maintains a low-level auxiliary power supply to the motherboard. Even if the PC is powered off the network card is always active and monitoring the network. When a wake-up packet is detected, the card signals the motherboard to power up the PC. With the PC powered on, maintenance and other support tasks can be performed.

Installation

Warning: Network cards are sensitive to static electricity. To protect the card, avoid touching its electrical components and always touch the metal chassis of your computer before handling the card.

1. Switch off the computer, unplug the power cord, and remove the computer’s cover.
2. Select an unused PCI bus-master slot and remove its protective bracket.

- Carefully insert the card and press until all the edge connectors are firmly seated inside the slot. Then, screw the card's bracket securely into the PC's chassis.



- Connect the 3Com OfficeConnect 10/100 NIC directly to a 10BASE-T or 100BASE-TX hub or switch using UTP cable (Category 3, 4 or 5 for 10BASE-T; Category 5 for 100BASE-TX). The maximum allowable length of UTP cable connections is 100 meters (328 ft). When inserting an RJ-45 plug, be sure the tab on the plug clicks into position to ensure that it is properly seated.
- Replace the computer's cover and power it on. The 3Com OfficeConnect 10/100 NIC should be automatically configured by the host computer's BIOS. However, if you have an older computer, you may have to manually configure the computer's BIOS settings. See "Troubleshooting" on page 8.
- A text file is included with each supported operating system to detail the proper installation procedure. New or updated drivers can be downloaded from 3Com's Web site at **www.3com.com**.

Troubleshooting

Check the following troubleshooting items before contacting 3Com Technical Support.

PCI Compatibility

Some PCI computers are not self-configuring and require you to perform some or all of the following functions by motherboard jumper changes and/or BIOS Setup program configuration:

- Make sure your BIOS correctly supports the PCI Local Bus Specification v2.0 or later and upgrade your computer BIOS to the latest version.
- Verify that the PCI slot is an enabled bus-master slot and not a slave PCI slot. In some computers the PCI slot must be configured to enable bus mastering. Refer to your PC's manual and check the PCI BIOS Set up program to be sure the PCI slot is an enabled bus-master slot.
- In some computers, you may be required to disable Plug-and-Play in the BIOS Set up program if resources are not properly assigned between installed cards.
- Some computers may require you to reserve interrupts and memory addresses for installed ISA cards to prevent PCI cards using the same settings. Refer to your PC's manual and check the PCI BIOS Set up program configuration options for ISA cards.
- Make sure the PCI slot is configured to support INTA.
- Be sure that INTA for the slot is assigned to a free interrupt (IRQ) number.

- Check the BIOS Setup program's PCI parameters for the slot where the 3Com OfficeConnect 10/100 NIC is installed. Be sure the slot is configured for level-triggered interrupts instead of edge-triggered interrupts. An example of typical PCI parameters follows:

```

PCI Slot #:          (slot number where the network card
                    is installed)
Master:             Enabled
Slave:              Enabled
Latency Timer:      40(range is 20 to 255)
Interrupt Type:     Level-Triggered
Interrupt Number:   choose any number the BIOS Setup
                    provides that does not conflict
                    with another installed card)
    
```

Note: The wording of these parameters varies with different computers, and not all parameters may be configurable.

Always consult your computer manual for information on changing motherboard jumper settings and BIOS Setup program parameters for use with PCI network cards. If you set a motherboard jumper and modify the computer's BIOS Setup, make sure the jumper and BIOS settings match.

Adapter Installation Problems

If your computer cannot find the 3Com OfficeConnect 10/100 NIC or the network driver does not install correctly, check the following:

- Make sure the adapter is securely seated in the PCI slot. Check for any hardware problems, such as physical damage to the card's edge connector.
- Try the card in another PCI bus-master slot. If this fails, test with another 3Com OfficeConnect 10/100 NIC that is known to operate correctly.
- Check for resource conflict in the PCI configuration. See "PCI Compatibility."
- Make sure your computer is using the latest BIOS available.
- If there are other network adapters in the computer, they may be causing conflict. Remove all other adapters from the computer and test the 3Com adapter separately.
- Check for a defective computer or PCI bus by trying the adapter in another computer that is known to operate correctly.

Network Connection Problems

There may be a network connection problem if the LED on the card's bracket does not light, or if you cannot access any network resources from the computer. Check the following items.

- Be sure you are using Category 5 cable for 100 Mbps connections, and that the length of any cable does not exceed 100 m (328 ft).
- Inspect all network cables and connections. Make sure the network cable is securely attached to the card's connector.
- Make sure the correct network card driver is installed for your operating system. If necessary, try reinstalling the driver.
- Make sure the computer and other network devices are receiving power. If you suspect a power outlet to be faulty, plug another device into it to verify that it is working.
- If the network card's speed or duplex mode has been configured manually, check that it matches that of the attached network device port. Note that it is recommended to set the card to auto-negotiation when installing the network driver.
- The port on the network device that the card is attached to may be defective. Try using another port on the device.
- If you cannot access a Windows or NetWare service on the network, check that you have enabled and configured the service correctly. If you cannot connect to a particular server, be sure that you have access rights and a valid ID and password.
- If you cannot access the Internet, be sure you have configured your system for TCP/IP.

Compliances

FCC Class B Certification

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Warning! This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from the one which the receiver is connected to.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Note: In order to maintain compliance with the limits of a Class B digital device, Accton requires that you use a quality interface cable when connecting to this device. Changes or modifications not expressly approved by Accton could void the user's authority to operate this equipment.

VCCI Class B Compliance (Japan)

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取り扱い説明書に従って正しい取り扱いをして下さい。

CE Mark Declaration of Conformance for EMI and Safety (EEC)

This information technology equipment complies with the requirements of the Council Directive 89/336/EEC on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility and 73/23/EEC for electrical equipment used within certain voltage limits and the Amendment Directive 93/68/EEC. For the evaluation of the compliance with these Directives, the following standards were applied:

- RFI Emission:
- Limit class B according to EN 55022:1998
 - Limit class B for harmonic current emission according to EN 61000-3-2/1995
 - Limitation of voltage fluctuation and flicker in low-voltage supply system according to EN 61000-3-3/1995
- Immunity:
- Product family standard according to EN 55024:1998
 - Electrostatic Discharge according to EN 61000-4-2:1995 (Contact Discharge: ± 4 kV, Air Discharge: ± 8 kV)
 - Radio-frequency electromagnetic field according to EN 61000-4-3:1996 (80 - 1000 MHz with 1 kHz AM 80% Modulation: 3 V/m)
 - Electrical fast transient/burst according to EN 61000-4-4:1995 (AC/DC power supply: ± 1 kV, Data/Signal lines: ± 0.5 kV)
 - Surge immunity test according to EN 61000-4-5:1995 (AC/DC Line to Line: ± 1 kV, AC/DC Line to Earth: ± 2 kV)

- Immunity to conducted disturbances, Induced by radio-frequency fields: EN 61000-4-6:1996 (0.15 - 80 MHz with 1 kHz AM 80% Modulation: 3 V/m)
 - Power frequency magnetic field immunity test according to EN 61000-4-8:1993 (1 A/m at frequency 50 Hz)
 - Voltage dips, short interruptions and voltage variations immunity test according to EN 61000-4-11:1994 (>95% Reduction @10 ms, 30% Reduction @500 ms, >95% Reduction @5000 ms)
- LVD:
- EN 60950 (A1/1992; A2/1993; A3/1993; A4/1995; A11/1997)

Warning! Do not plug a phone jack connector in the RJ-45 port. This may damage this device.

Specifications

Network Interface	10BASE-T: RJ-45 (UTP cable; Cat. 3, 4 or 5) 100BASE-TX: RJ-45 (UTP cable; Cat. 5)
Bus Interface	32-bit PCI Bus Master
PCI Interrupt Channel	INTA
LED Indicator	Link/Activity/Speed
Size (without bracket)	119.92 x 42.98 mm (4.72 x 1.70 in.)
Weight	47 g (1.66 oz)
Operating Voltage	5 V, 125 mA maximum
Environmental	
Temperature	0 ~ 55 °C / 32 ~131 °F (Standard Operating) -20 ~ 65 °C / -4 ~ 149 °F (Storage)
Humidity	10 ~ 90% (noncondensing)
Standards Conformance	IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.1p/Q PCI bus V 2.2, ACPI, On Now/PC 98, PC 99
Certification	
CE Mark	EN50081-1, EN55022 Class B EN50082-1, EN 61000-4-2/3/4/5/6/8/11
Emissions	FCC Class B, VCCI Class B, CISPR Class B
Warranty	Limited 1 Year

Software Drivers

NDIS 5.0 Drivers	Windows 2000, Windows ME, Windows XP
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**3Com Corporation 5400 Bayfront Plaza
Santa Clara, California 95052-8145**

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