D-Link

Gigabit Ethernet 1000BASE-SX(LC) PCI-Express X4 Adapter User Manual

(September 2006) Ver.1.00 P/N: 6DGE560SX.01G RECYCLABLE

Contents

| IMPORTANT INFORMATION | 1 |
|--------------------------------|---|
| What's New | 1 |
| System Hardware Requirements | 1 |
| Operating Systems Supported: | 1 |
| | 2 |
| Summary of Features | 2 |
| LED Indicators | 2 |
| INSTALLATION | 3 |
| Unpack and Inspect | |
| Installing the Adapter | |
| Connecting the Network Cable | 4 |
| Software Installation | 4 |
| D-Link Network Control Program | |
| Advanced Adapter Configuration | 8 |
| TECHNICAL SPECIFICATIONS | 9 |

Important Information

Please read the information below before installing the D-Link Gigabit Ethernet 1000BASE-SX(LC) PCI-Express X4 Adapter on your system.

What's New

The latest generation PCI (Peripheral Component Interconnect) bus architecture called PCI Express, uses a 2.5-GHz serial Input/Output structure for higher bandwidth and better scalability than its previous architectures. The DGE-560SX 1000BASE-SX (LC) PCI-Express x4 supports up to 2 Gbps total bidirectional throughput. The faster serial-bus architecture provides bidirectional dedicated Input/Output with 2.5-GHz clocking, compared to 133-MHz parallel bus of the previous generation PCI-Expanded (PCI-X).

System Hardware Requirements

Before installing the DGE-560SX, check to be sure your system meets the following minimum requirements:

- Available PCI-Express (x4 or higher) card slot
- 64 MB of System Memory
- 150 MHz or faster processor
- The most recent BIOS version for your system
- In addition to these system requirements, the optical network interface requires a 850nm LC Fiber Optical connector

Hardware Driver Compatability

To ensure optimal performance, it is recommended that you download the latest hardware drivers for all your particular adapters from the manufacturer's web site.

It is recommended that you install the latest Service Packs and/or Hot Fixes from Microsoft prior to installing D-Link PCI-Express Card Software. Refer to the Release Notes for the latest list of Service Packs and/or Hot Fixes that are required.

Operating Systems Supported:

- Microsoft Windows 2000, 2000 server
- Microsoft Windows Server 2003, Server 2003 x64 Edition
- Microsoft Windows XP
- Microsoft Windows XP x64 Edition
- Linux for Kernel 2.4.x, 2.6.x

Introduction

The DGE-560SX 1000BASE-SX (LC) PCI-Express x4 network adapter card is ideal for optical Gigabit Ethernet to desktop PC networking. The card is capable of supporting total bidirectional bandwidth of up to 2 Gbps and can be installed on a desktop PC or server.

Notable features of the DGE-560SX include VLAN tagging, LED display for linkage and activity, Flow Control and 802.1p Priority support.

Summary of Features

Designed for versatility and performance, the DGE-560SX provides the following:

- Compliant with IEEE 802.3z specification for 1000Base-SX Ethernet standards
- Support PCI-E 1.0a interface with 2.5GHz signaling
- 9K bytes Jumbo frame support
- Support IEEE 802.1p (QoS)
- Support IEEE 802.1q VLAN
- With D-Link Network Control Program for advanced feature setting
- Simple Network Management Protocol (SNMP) Support
- Compliant to IEEE 802.3x for flow control and full-duplex operation
- Promiscuous Mode
- Support Full-duplex operation
- Link / Act LED
- Transmission distance range:
 - 75 meter in 62.5 / 125 micron-meter multi-mode fiber cable
 - 550 meter in 50 / 125 micron-meter multi-mode fiber cable

Driver Support for:

- Microsoft Windows 2000, 2000 server
- Microsoft Windows Server 2003, Server 2003 x64 Edition
- Microsoft Windows XP
- Microsoft Windows XP x64 Edition
- Linux for Kernel 2.4.x, 2.6.x

LED Indicators

The DGE-560SX Adapter features three LED indicators:

- Act (Activity) Flashing green indicates activity (transmitting or receiving) within the adapter.
- Link Steady green indicates good linkage between the DGE-560SX and its supporting server or switch.

2

Installation

Follow the instructions in this section to install the adapter.

Unpack and Inspect

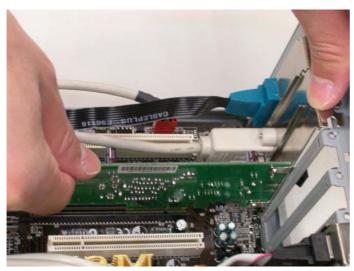
Caution: Under ordinary circumstances, a DGE-560SX card will not be affected by static charge. In some circumstances where you may carry an extraordinarily high static charge, it is good practice to reduce the charge by touching a ground before handling the adapter card.

Open the shipping carton and carefully remove all items. Make sure you have the following items:

- One DGE-560SX 1000BASE-SX(LC) PCI-E x4 Adapter Card
- CD-ROM containing system drivers, and Quick Installation Guide

Installing the Adapter

- 1. Shut down the computer, unplug its power cord, and remove the chassis cover.
- 2. Insert the contact edge of the DGE-560SX card into the connector of an available PCI-Express (x4 or higher) Bus expansion slot. Press the card firmly into the connector such that the card's contacts are fully seated in the PCI connector.



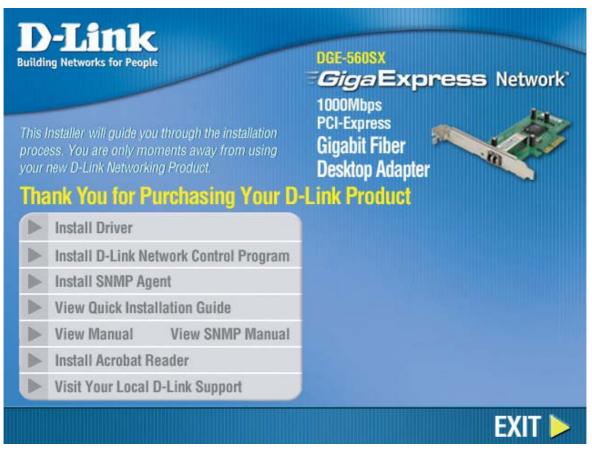
- 3. Install the bracket screw that secures the card to the computer chassis.
- 4. Replace the computer's chassis cover.
- 5. Reconnect the computer's power cord, and switch computer power on. If the BIOS section of your computer's boot program is Plug-and-Play compliant, then at power-up the BIOS will automatically configure any newly installed DGE-560SX adapter.

Connecting the Network Cable

The DGE-560SX 1000Base-SX Gigabit Ethernet network adapter card enables operation over 850nm 62.5/125 fiber optic cable up to 75 meters and 850nm 50/125 fiber optic cable up to 550 meters. The network adapter card connects to fiber optic cabling equipped with an LC Fiber Optical connector.

Software Installation

To install the driver or the D-Link Network Control Program, insert the CD-ROM in the CD-ROM drive of the system with the installed adapter.



The D-Link Network Control Program is included with the DGE-560SX. This program is used to monitor the adapter and create VLAN information including VLAN Identifier and name for the system in which it is installed.

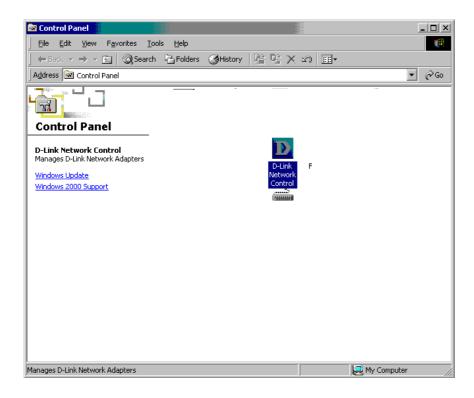
To install the D-Link Network Control Program, insert the CD-ROM in the system CD-ROM drive and click the Install link. Follow the instructions that appear to install the program.

D-Link Network Control Program

To launch the D-Link Network Control program, double-click the D-Link Network Control icon in the Control Panel folder.



NOTE: D-Link Network Control Program can be installed and used on Windows 2000, Windows XP and Windows Server 2003.



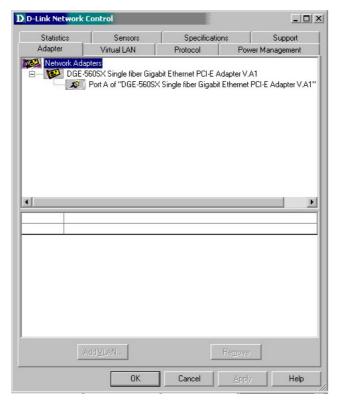
The Network Control menu lists adapters installed on the system. For systems with multiple adapters installed, select the DGE-560SX from the list and click **OK**. Click the menu tab for the menu you want to view.



NOTE: The Power Management and Sensors functions are not currently supported on the adapter.

| D D-Link Network C | ontrol | | | _ 🗆 × |
|--------------------|---|--------------|--------|----------------|
| Statistics | Sensors | Specificatio | ons | Support |
| Adapter | Virtual LAN | Protocol | Pow | ver Management |
| | ters JOSX Single fiber Gigal Port A of "DGE-560SX | | | |
| • | | | | |
| | | | | |
| | | | | |
| A | id <u>V</u> LAN | | Remove | |
| | OK | Cancel | Apply | Help |

To add VLAN ID, click the Virtual LAN menu tab.



In the Virtual LAN menu tab, click the Add VLAN button.

| D-Link Network Control | | | | | |
|--|--|----------------------|------------|------------------------|--|
| | Sensors | Specifical | | Support | |
| Adaptor | al LAN | Protocol | Po | wer Management | |
| | VLAN Adapters | | | | |
| Available to be bound | | | | | |
| Port A of "DGE | -560SX Single | e fiber Gigabit Ethe | rnet PCI-E | Adapter V.A1" in Slot | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| • | | | | | |
| ∢ Port A of "DGE-560SX S | ingle fiber (| Gigabit Etherne | t PCI-E A | ↓ Mapter V.A1" in S | |
| | ingle fiber (Value | Gigabit Etherne | t PCI-E A | dapter V.A1" in S | |
| Port A of "DGE-560SX S | | Gigabit Etherne | t PCI-E A | dapter V.A1" in S | |
| Port A of "DGE-560SX S Parameter name | Value | Gigabit Etherne | t PCI-E A | Ladapter V.A1" in S | |
| Port A of "DGE-560SX S Parameter name Jumbo Frames | Value Disabled | Gigabit Etherne | t PCI-E A | dapter V.A1" in S | |
| Port A of "DGE-560SX S Parameter name Jumbo Frames FlowControl | Value Disabled On | Gigabit Etherne | t PCI-E A | udapter V.A1" in S | |
| Port A of "DGE-560SX S Parameter name Jumbo Frames FlowControl Number of Transmit Buffers | Value Disabled On 256 | Gigabit Etherne | t PCI-E A | Adapter V.A1" in S | |
| Port A of "DGE-560SX S Parameter name Jumbo Frames FlowControl Number of Transmit Buffers Number of Receive Buffers | Value Disabled On 256 256 | Gigabit Etherne | t PCI-E A | udapter V.A1" in S | |
| Port A of "DGE-560SX S Parameter name Jumbo Frames FlowControl Number of Transmit Buffers Number of Receive Buffers TCP Segmentation | Value Disabled On 256 256 Enabled | Gigabit Etherne | t PCI-E A | udapter V.A1" in S | |
| Port A of "DGE-560SX S Parameter name Jumbo Frames FlowControl Number of Transmit Buffers Number of Receive Buffers TCP Segmentation Wake From Shutdown | Value Disabled On 256 256 Enabled Off | Gigabit Etherne | t PCI-E A | Ldapter V.A1" in S | |
| Port A of "DGE-560SX S Parameter name Jumbo Frames FlowControl Number of Transmit Buffers Number of Receive Buffers TCP Segmentation Wake From Shutdown | Value Disabled On 256 256 Enabled Off | Gigabit Etherne | t PCI-E A | Adapter V.A1" in S | |
| Port A of "DGE-560SX S Parameter name Jumbo Frames FlowControl Number of Transmit Buffers Number of Receive Buffers TCP Segmentation Wake From Shutdown | Value Disabled On 256 256 Enabled Off | Gigabit Etherne | t PCI-E A | sdapter V.A1" in S | |
| Port A of "DGE-560SX S Parameter name Jumbo Frames FlowControl Number of Transmit Buffers Number of Receive Buffers TCP Segmentation Wake From Shutdown | Value Disabled On 256 256 Enabled Off Off | Gigabit Etherne | t PCI-E A | | |
| Port A of "DGE-560SX S Parameter name Jumbo Frames FlowControl Number of Transmit Buffers Number of Receive Buffers TCP Segmentation Wake From Shutdown 802.1p Support | Value Disabled On 256 256 Enabled Off Off | Gigabit Etherne | | | |

In the Add Virtual LAN pop-up menu, select the **Virtual LAN ID** (VID) number used for the system. A **Virtual LAN Name** can also be created but is optional. The Add Virtual LAN menu is also used to configure Jumbo Frames, Transmit Buffers, and Receive Buffers.

| Add Virtual LAN Port A of "DGE-560SX Si | ingle fiber Gig | abit Ethernet PCI-E Adapter V.A1'' in Slo | ot 4 |
|--|-----------------|---|------|
| | | Parameters | |
| Virtual LAN ID: | | 1 | |
| Virtual LAN Nam | e: | | |
| Jumbo Frames | | Disabled | |
| Number of Trans | mit Buffers: | 256 | |
| Number of Rece | ive Buffers: | 256 | |
| [| OK | Cancel | |

Advanced Adapter Configuration

The DGE-560SX supports advanced features including the SNMP agent described in the separate SNMP Agent Manual, and support for 802.1p priority. To enable or disable 802.1p support on the adapter, go to the **Properties** menu (right-click on Local Area Connection icon in Network Connections) and click the Configure button:

| Local Area Connection 2 Properties | | | | |
|---|--|--|--|--|
| General Sharing | | | | |
| Connect using: | | | | |
| DGE-560SX Single fiber Gigabit Ethernet PCI-E Adapter V | | | | |
| Components checked are used by this connection: | | | | |
| Client for Microsoft Networks Odyssey Network Agent Sile and Printer Sharing for Microsoft Networks Marvell Link Aggregation Protocol (LAGG) Support | | | | |
| Install Uninstall Properties Description Allows your computer to access resources on a Microsoft | | | | |
| network. □ Sho <u>w</u> icon in taskbar when connected | | | | |
| OK Cancel | | | | |

Click the Advanced tab in the men that appears:

| DGE-5605X Single fiber Gigabit Ethernet PCI-E Adapter V.A1 Pr 🎦 🗙 | | | | | |
|---|------------------------|--------|--|--|--|
| General Advanced Driver Resources | | | | | |
| The following properties are available for t the property you want to change on the le on the right. | | | | | |
| B02:1 p Support FlowControl Hardware Checksumming Interrupt Moderation Jumbo Frames Log Status Messages Max IRQ per Sec Network Address Number of Receive Buffers Number of Transmit Buffers TCP Segmentation | <u>V</u> alue: [Off | T | | | |
| | ОК | Cancel | | | |

Use the Advanced configuration menus to configure 802.1p, select **802.1p Support** from the **Property** list and choose *On* to enable or *Off* to disable from the **Value** pull-down menu.

Other advanced configuration features that can be changed or enabled include Flow Control, Jumbo Frames, Log Status Messages, Transmit and Receive buffers and others.

Technical Specifications

| Specifications | | | |
|-----------------------|--|--|--|
| Network Media | 62.5 / 125 micron-meter multi-mode fiber cable 50 / 125 micron-meter multi-mode fiber cable | | |
| Connector | 850nm, LC Fiber Optical connector | | |
| Controller | Marvell 88E8061 | | |
| Bus Architecture | PCI Express 1.0a interface with 2.5GHz signaling | | |
| Memory | 96Кb | | |
| Diagnostic LEDs | Activity/Link (blinking green = activity) | | |
| Network Data Transfer | Gigabit Ethernet: 2000Mbps (Full-duplex) | | |
| Dimensions | 115 mm (L) x 60 mm (H) | | |
| Management | VLAN support, D-Link Network Control Program, SNMP Agent | | |

| Specifications | | | | | |
|-------------------|---|--|--|--|--|
| Compliance | • IEEE 802.3ab/802.3z 1000BASE-SX Gigabit Ethernet | | | | |
| | IEEE 802.3x Flow-Control | | | | |
| | IEEE 802.1p Quality of Service | | | | |
| | • IEEE 802.1q/802.3ac VLAN/VLAN Tagging | | | | |
| | • PCI Express 1.0a specification | | | | |
| Protocol | CSMA/CD | | | | |
| Driver Support | Microsoft Windows 2000, 2000 server | | | | |
| | Microsoft Windows Server 2003 | | | | |
| | Microsoft Windows Server 2003 x64 Edition | | | | |
| | Microsoft Windows XP | | | | |
| | Microsoft Windows XP x64 Edition | | | | |
| | • Linux for Kernel 2.4.x, 2.6.x | | | | |
| Power Consumption | 10W | | | | |
| Temperature | • Operating: 0~50°C (32~122°F) | | | | |
| | • Storage: -20~70°C (-4~158°F) | | | | |
| Humidity | Operating: 30%~80% non-condensing | | | | |
| | Storage: 10%~95% non-condensing | | | | |
| EMI Certification | • FCC Class B | | | | |
| | • CE Mark Class B | | | | |
| | • VCCI Class B | | | | |
| | • C-Tick | | | | |

Information in this document is subject to change without notice.

© 2006 D-Link Computer Corporation. All rights reserved.

Reproduction in any manner whatsoever without the written permission of D-Link Computer Corporation is strictly forbidden.

Trademarks used in this text: *D-Link* and the *D-LINK* logo are trademarks of D-Link Computer Corporation; *Microsoft* and *Windows* are registered trademarks of Microsoft Corporation.

Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. D-Link Computer Corporation disclaims any proprietary interest in trademarks and trade names other than its own.

FCC Certifications

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 separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded interface cables must be used in order to comply with emission limits.

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

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, and (2) This device must accept any interference received, including interference that may cause undesired operation.



Limited Warranty (USA Only)

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited warranty for its product only to the person or entity that originally purchased the product from:

- D-Link or its authorized reseller or distributor and
- Products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, addresses with an APO or FPO.

Limited Warranty: D-Link warrants that the hardware portion of the D-Link products described below will be free from material defects in workmanship and materials from the date of original retail purchase of the product, for the period set forth below applicable to the product type ("Warranty Period"), except as otherwise stated herein.

1-Year Limited Warranty for the Product(s) is defined as follows:

- Hardware (excluding power supplies and fans) One (1) Year
- Power Supplies and Fans One (1) Year
- Spare parts and spare kits Ninety (90) days

D-Link's sole obligation shall be to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund at D-Link's sole discretion. Such repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement Hardware need not be new or have an identical make, model or part. D-Link may in its sole discretion replace the defective Hardware (or any part thereof) with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement Hardware will be warranted for the remainder of the original Warranty Period from the date of original retail purchase. If a material defect is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to repair or replace the defective Hardware. All Hardware (or part thereof) that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

Limited Software Warranty: D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software and operated as contemplated in its documentation. D-Link further warrants that, during the Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. D-Link's sole obligation shall be to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund at D-Link's sole discretion. Except as otherwise agreed by D-Link's in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the date or original retail purchase. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original licensee for the original licensee for the non-conforming Software will be returned to D-Link's sole discretion. Except as otherwise agreed by D-Link's to replace the non-conforming Software, the price paid by the original Warranty Period from the date or original retail purchase. If a material non-conforming Software, the price paid by the original licensee for the non-conforming Software or which a refund as provided that the non-conforming Software to D-Link's sole discretion. The license granted by D-Link's the non-conforming Software for which a refund is given automatically terminates.

Non-Applicability of Warranty: The Limited Warranty provided hereunder for hardware and software of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

Submitting A Claim: The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow D-Link to confirm the same.
- The original product owner must obtain a Return Material Authorization ("RMA") number from the Authorized D-Link Service Office and, if requested, provide written proof of purchase of the product (such as a copy of the dated purchase invoice for the product) before the warranty service is provided.
- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. D-Link will only replace the defective portion of the Product and will not ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to D-Link Systems, Inc., 17595 Mt. Herrmann, Fountain Valley, CA92708. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link, with shipping charges prepaid. Expedited shipping is available if shipping charges are prepaid by the customer and upon request.

D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

What Is Not Covered: This limited warranty provided by D-Link does not cover: Products, if in D-Link's judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product. Repair by anyone other than D-Link or an Authorized D-Link Service Office will void this Warranty.

Disclaimer of Other Warranties: EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO NINETY (90) DAYS. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

Limitation of Liability: TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE, RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NON-CONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY

Governing Law: This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This limited warranty provides specific legal rights and the product owner may also have other rights which vary from state to state.

For detailed warranty outside the United States, please contact corresponding local D-Link office.

Register online your D-Link product at http://support.dlink.com/register/

Information in this document is subject to change without notice.

D-Link International Offices

U.S.A 17595 Mt. Herrmann Street Fountain Valley, CA 92708 TEL: 1-800-326-1688 URL: www.dlink.com

Canada 2180 Winston Park Drive Oakville, Ontario, L6H 5W1 Canada TEL: 1-905-8295033 FAX: 1-905-8295223 URL: www.dlink.ca

Europe (U. K.) 4th Floor, Merit House Edgware Road, Colindale London NW9 5AB U.K. TEL: 44-20-8731-5555 FAX: 44-20-8731-5511 URL: www.dlink.co.uk

Germany Schwalbacher Strasse 74 D-65760 Eschborn Germany TEL: 49-6196-77990 FAX: 49-6196-7799300 URL: www.dlink.de

France No.2 all'ee de la Fresnerie 78330 Fontenay le Fleury France TEL: 33-1-30238688 FAX: 33-1-30238689 URL: www.dlink.fr

Netherlands Weena 290 3012 NJ, Rotterdam

Netherlands Tel: +31-10-282-1445 Fax: +31-10-282-1331 URL: www.dlink.nl

Belgium Rue des Colonies 11 B-1000 Brussels Belgium Tel: +32(0)2 517 7111 Fax: +32(0)2 517 6500 URL: www.dlink.be

Italy

Via Nino Bonnet n. 6/b 20154 - Milano Italy TEL: 39-02-2900-0676 FAX: 39-02-2900-1723 URL: www.dlink.it

Sweden P.O. Box 15036, S-167 15 Bromma Sweden TEL: 46-(0)8564-61900 FAX: 46-(0)8564-61901 URL: www.dlink.se

Denmark Naverland 2, DK-2600 Glostrup, Copenhagen Denmark TEL: 45-43-969040

FAX: 45-43-424347 URL: www.dlink.dk

Norway Karihaugveien 89 N-1086 Oslo Norway TEL: +47 99 300 100 FAX: +47 22 30 95 80

URL: www.dlink.no

Spain Avenida Diagonal, 593-95, 9th floor 08014 Barcelona

Spain TEL: 34 93 4090770 FAX: 34 93 4910795 URL: www.dlink.es

Portugal Rua Fernando Pahla 50 Edificio Simol 1900 Lisbon Portugal TEL: +351 21 8688493 URL: www.dlink.es

Czech Republic Vaclavske namesti 36, Praha 1 Czech Republic TEL :+420 (603) 276 589 URL: www.dlink.cz

Switzerland Glatt Tower, 2.OG CH-8301 Glattzentrum Postfach 2.OG Switzerland TEL : +41 (0) 1 832 11 00 FAX: +41 (0) 1 832 11 01 URL: www.dlink.ch

Greece

101, Panagoulis Str. 163-43 Helioupolis Athens, Greece TEL : +30 210 9914 512 FAX: +30 210 9916902 URL: www.dlink.gr

Luxemburg Rue des Colonies 11,

B-1000 Brussels, Belgium TEL: +32 (0)2 517 7111 FAX: +32 (0)2 517 6500 URL: www.dlink.be

Poland

Budynek Aurum ul. Walic-w 11 PL-00-851 Warszawa Poland TEL : +48 (0) 22 583 92 75 FAX: +48 (0) 22 583 92 76 URL: www.dlink.pl

Hungary R-k-czi-t 70-72 HU-1074 Budapest Hungary TEL : +36 (0) 1 461 30 00 FAX: +36 (0) 1 461 30 09 URL: www.dlink.hu

Singapore 1 International Business Park #03-12 The Synergy Singapore 609917 TEL: 65-6774-6233 FAX: 65-6774-6322

URL: www.dlink-intl.com

Australia 1 Giffnock Avenue North Ryde, NSW 2113 Australia TEL: 61-2-8899-1800 FAX: 61-2-8899-1868 URL: www.dlink.com.au

India

D-Link House, Kurla Bandra Complex Road Off CST Road, Santacruz (East) Mumbai - 400098 India TEL: 91-022-26526696/56902210 FAX: 91-022-26528914 URL: www.dlink.co.in

Turkey Ayazaga Maslak Yolu Erdebil Cevahir Is Merkezi 5/A Ayazaga – Istanbul

Turkiye TEL: +90 212 289 56 59 FAX: +90 212 289 76 06 URL: www.dlink.com.tr Egypt 19 El-Shahed Helmy, El Masri Al-Maza, Heliopolis

Cairo, Egypt TEL:+202 414 4295 FAX:+202 415 6704 URL: www.dlink-me.com

Israel 11 Hamanofim Street Ackerstein Towers, Regus Business Center P.O.B 2148, Hertzelia-Pituach 46120 Israel TEL: +972-9-9715700 FAX: +972-9-9715601 URL: www.dlink.co.il

LatinAmerica Isidora Goyeechea 2934 Ofcina 702 Las Condes Santiago – Chile TEL: 56-2-232-3185 FAX: 56-2-232-0923 URL: www.dlink.cl

Brazil Av das Nacoes Unidas 11857 – 14- andar - cj 141/142 Brooklin Novo Sao Paulo - SP - Brazil CEP 04578-000 (Zip Code) TEL: (55 11) 21859300 FAX: (55 11) 21859322 URL: www.dlinkbrasil.com.br

South Africa

Einstein Park II Block B 102-106 Witch-Hazel Avenue Highveld Technopark Centurion Gauteng Republic of South Africa TEL: 27-12-665-2165 FAX: 27-12-665-2186 URL: www.d-link.co.za

Russia Grafsky per., 14, floor 6 Moscov 129626 Russia TEL: 7-495-744-0099 FAX: 7-495-744-0099 #350 URL: www.dlink.ru

Chine

No.202,C1 Building, Huitong Office Park, No. 71, Jianguo Road, Chaoyang District, Beijing 100025, China. TEL +86-10-58635800 FAX: +86-10-58635799 URL: www.dlink.com.cn

Taiwan No 289 Sinhu 3rd Rd Neihu District Taipei City 114 ,Taiwan TEL: 886-2-6600-0123 FAX: 886-2-6600-1188 URL: www.dlinktw.com.tw

| | | R | egistration Card | |
|--|---|---|--|--|
| Your name: Organization Your title at Telephone:_ | : organization: 's full address: | e tters. Dept Fax: e of purchase (Month/Day/Year): | | |
| Product Model | Product Serial No. | * Product installed in type of computer (e.g., Compaq 486) | * Product installed Computer serial No. | - |
| Reseller's na Telephone:_ | s purchased from | : Fax: | | |
| □Home □ 2. How man □1 employ 3. What net | d how will the pro Office Travel Co y employees work ree C2-9 C10-49 C | oduct primarily be used? ompany Business □Home Business □Po x at installation site? 50-99 □100-499 □500-999 □1000 or n loes your organization use ? | | |
| 4. What net □D-Link I □PC NFS | work operating sy ANsmart □Novell № □3Com 3+Open □F | stem(s) does your organization us NetWare DNetWare Lite DSCO Unix/X Janyan Vines DDECnet Pathwork AS DWindows '95 DOther | | |
| D-View | | t program does your organization ndows □HP OpenView/Unix □SunNet | | |
| □Fiber-op | tics Thick coax Eth | lia does your organization use ? hernet □Thin coax Ethernet BASE-TX □100BASE-T4 □100VGAn | yLAN DOther | |
| □Desktop | | I on your network? sheet □Word processing □CAD/CAM ounting □Other | _ | |
| □Aerospa | | | □Insurance/Real Estate □Manufacturing mpany□Other | □Retail/Chainstore/Wholesale □Government |
| | u recommend you lo (why?) | ur D-Link product to a friend? | | |
| 10. Your co | mments on this pr | roduct: | | |

