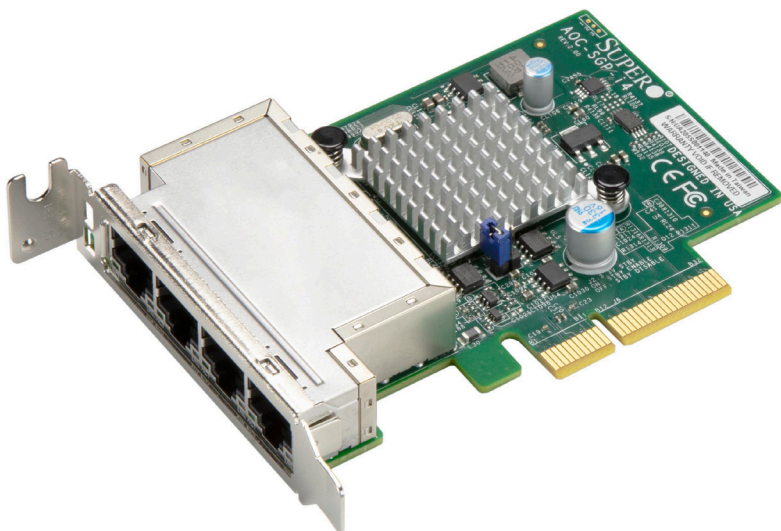# AOC-SGP-i4

User's Guide

Revision 1.0b

The information in this user's guide has been carefully reviewed and is believed to be accurate. The vendor assumes no responsibility for any inaccuracies that may be contained in this document, and makes no commitment to update or to keep current the information in this user's guide, or to notify any person or organization of the updates. **Please Note: For the most up-to-date version of this user's guide, please see our Website at www.supermicro.com.**

Super Micro Computer, Inc. ("Supermicro") reserves the right to make changes to the product described in this user's guide at any time and without notice. This product, including software and documentation, is the property of Supermicro and/or its licensors, and is supplied only under a license. Any use or reproduction of this product is not allowed, except as expressly permitted by the terms of said license.

IN NO EVENT WILL SUPER MICRO COMPUTER, INC. BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, SPECULATIVE OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OR INABILITY TO USE THIS PRODUCT OR DOCUMENTATION, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN PARTICULAR, SUPER MICRO COMPUTER, INC. SHALL NOT HAVE LIABILITY FOR ANY HARDWARE, SOFTWARE, OR DATA STORED OR USED WITH THE PRODUCT, INCLUDING THE COSTS OF REPAIRING, REPLACING, INTEGRATING, INSTALLING OR RECOVERING SUCH HARDWARE, SOFTWARE, OR DATA.

Any disputes arising between the manufacturer and the customer shall be governed by the laws of Santa Clara County in the State of California, USA. The State of California, County of Santa Clara shall be the exclusive venue for the resolution of any such disputes. Supermicro's total liability for all claims will not exceed the price paid for the hardware product.

FCC Statement: 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 an industrial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case you will be required to correct the interference at your own expense.

California Best Management Practices Regulations for Perchlorate Materials: This Perchlorate warning applies only to products containing CR (Manganese Dioxide) Lithium coin cells. "Perchlorate Material-special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate".

⚠ WARNING: This product can expose you to chemicals including lead, known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

Preface

About this User's Guide

This user's guide is written for system integrators, PC technicians, and knowledgeable PC users. It provides information for the installation and use of the AOC-SGP-i4 add-on card.

About this Add-on Card

With the AOC-SGP-i4, Supermicro has extended the boundaries of Ethernet technology to create the most compact and versatile Ethernet controller in the market, allowing it to fit into the smallest spaces in a dense server system. With an ultra-small footprint and rich in power-management features, the AOC-SGP-i4 represents the next step in the evolution of gigabit Ethernet networking for enterprise and data center environments.

An Important Note to the User

All images and layouts shown in this user's guide are based upon the latest PCB Revision available at the time of publishing. The card you have received may or may not look exactly the same as the graphics shown in this user's guide.

Returning Merchandise for Service

A receipt or copy of your invoice marked with the date of purchase is required before any warranty service will be rendered. You can obtain service by calling your vendor for a Returned Merchandise Authorization (RMA) number. When returning the motherboard to the manufacturer, the RMA number should be prominently displayed on the outside of the shipping carton, and the shipping package is mailed prepaid or hand-carried. Shipping and handling charges will be applied for all orders that must be mailed when service is complete. For faster service, You can also request a RMA authorization online (http://www.supermicro.com).

This warranty only covers normal consumer use and does not cover damages incurred in shipping or from failure due to the alternation, misuse, abuse or improper maintenance of products.

During the warranty period, contact your distributor first for any product problems.

Conventions Used in the User's Guide

Pay special attention to the following symbols for proper system installation and to prevent damage to the system or injury to yourself:

⚠️ **Warning:** Important information given to ensure proper system installation or to prevent damage to the components or injury to yourself.

🖊️ **Note:** Additional information given to differentiate between various models or provides information for correct system setup.

Naming Convention for Standard Network Adaptors

A O C – S T G N – i 2 S

1 – 2 3 4 – 5 6 7

Character	Representation	Options
1st	Product Family	AOC: Add On Card
2nd	Form Factor	S: Standard, P: Proprietary, C: MicroLP, U: UIO
3rd	Product Type/Speed	G: GbE (1Gb/s), TG: 10GbE (10Gb/s), 40G: 40GbE (40Gb/s), IBF: FDR IB (56Gb/s), IBQ: QDR IB (40Gb/s)
4th	Chipset Model (Optional)	N: Niantec (82599), P: Powerville (i350), S: Sageville (X550)
5th	Chipset Manufacturer	i: Intel, m: Mellanox, b: Broadcom
6th	Number of Ports	1: 1 port, 2: 2 ports, 4: 4 ports
7th	Connector Type (Optional)	S: SFP+, T: 10GBase-T, Q: QSFP+

Networking Adapter List

Model	Type	Form Factor	Controller	Connection	Dimension (w/o Brackets) (L x H)	Power (W)
AOC-MGP-i2	GbE	SIOM	Intel® i350 AM2	2 RJ45 (1Gb/port)	3.622" (92mm) x 3.428" (87.08mm)	3.7
AOC-MGP-i4	GbE	SIOM	Intel® i350 AM4	4 RJ45 (1Gb/port)	3.622" (92mm) x 3.428" (87.08mm)	4.4
AOC-MTGN-i2S	10GbE	SIOM	Intel® 82599ES	2 SFP+ (10Gb/port)	3.622" (92mm) x 3.428" (87.08mm)	7.2
AOC-MTG-i4S	10GbE	SIOM	Intel® XL710-BM1	4 SFP+ (10Gb/port)	3.622" (92mm) x 3.428" (87.08mm)	7
AOC-MTG-b2T	10GbE	SIOM	Broadcom® BCM57416	2 RJ45 (10GBase-T)	3.622" (92mm) x 3.428" (87.08mm)	11
AOC-MTG-i2T	10GbE	SIOM	Intel® X550-AT2	2 RJ45 (10GBase-T)	3.622" (92mm) x 3.428" (87.08mm)	13
AOC-MTG-i4T	10GbE	SIOM	2x Intel® X550-AT2	4 RJ45 (10GBase-T)	3.622" (92mm) x 3.428" (87.08mm)	26
AOC-MHIBF-m1Q2G	FDR IB GbE	SIOM	Mellanox® ConnectX-3 Pro Intel® i350	1 QSFP (56Gb/port) 2 RJ45 (1Gb/port)	3.622" (92mm) x 3.428" (87.08mm)	9
AOC-MHIBF-m2Q2G	FDR IB GbE	SIOM	Mellanox® ConnectX-3 Pro Intel® i350	2 QSFP (56Gb/port) 2 RJ45 (1Gb/port)	3.622" (92mm) x 3.428" (87.08mm)	11
AOC-MHIBE-m1CG	EDR IB GbE	SIOM	Mellanox® ConnectX-4 VPI Intel® i210	1 QSFP28 (100Gb/port) 1 RJ45 (1Gb/port)	3.622" (92mm) x 3.428" (87.08mm)	19
AOC-MH25G-b2S2G	25GbE	SIOM	Broadcom® BCM57414 Intel® i350	2 SFP28 (25Gb/port) 2 RJ45 (1Gb/port)	3.622" (92mm) x 3.428" (87.08mm)	9
AOC-MH25G-m2S2T	25GbE	SIOM	Mellanox® ConnectX-4 Lx EN Intel® X550-AT2	2 SFP28 (25Gb/port) 2 RJ45 (10GBase-T)	3.622" (92mm) x 3.428" (87.08mm)	25
AOC-M25G-m4S	25GbE	SIOM	Mellanox® ConnectX-4 Lx EN	4 SFP28 (25Gb/port)	3.622" (92mm) x 3.428" (87.08mm)	20
AOC-M25G-i2S	25GbE	SIOM	Intel® XXV710	2 SFP28 (25Gb/port)	3.622" (92mm) x 3.428" (87.08mm)	11.8
AOC-MHFI-i1C	Omni-Path	SIOM	Intel® OP HFI ASIC (Wolf River WFR-B)	1 QSFP28 (100Gb/port)	3.622" (92mm) x 3.428" (87.08mm)	15

Model	Type	Form Factor	Interface	Controller	Connection	Dimension (w/o Brackets) (L x H)	Power (W)
AOC-SGP-i2	GbE	Standard LP	PCI-E x4	Intel® i350 AM2	2 RJ45 (1Gb/port)	3.9" (99mm) x 2.73" (69mm)	3.5
AOC-SGP-i4	GbE	Standard LP	PCI-E x4	Intel® i350 AM4	4 RJ45 (1Gb/port)	3.9" (99mm) x 2.73" (69mm)	5
AOC-STG-i2T	10GbE	Standard LP	PCI-E x8	Intel® X540-AT2	2 RJ45 (10GBase-T)	5.9" (150mm) x 2.73" (69mm)	13
AOC-STGS-i1T	10GbE	Standard LP	PCI-E x4	Intel® X550-AT	1 RJ45 (10GBase-T)	5.9" (150mm) x 2.73" (69mm)	9
AOC-STGS-i2T	10GbE	Standard LP	PCI-E x4	Intel® X550-AT2	2 RJ45 (10GBase-T)	5.9" (150mm) x 2.73" (69mm)	11
AOC-STG-b2T	10GbE	Standard LP	PCI-E x8	Broadcom® BCM57416	2 RJ45 (10GBase-T)	5.6" (142mm) x 2.73"(69mm)	13.1
AOC-STG-i4T	10GbE	Standard LP	PCI-E x8	Intel® XL710-BM1	4 RJ45 (10GBase-T)	5.9" (149mm) x 2.73"(69mm)	15.5
AOC-STGN-i1S	10GbE	Standard LP	PCI-E x8	Intel® 82599EN	1 SFP+ (10Gb/port)	4.0" (102mm) x 2.73" (69mm)	10
AOC-STGN-i2S	10GbE	Standard LP	PCI-E x8	Intel® 82599ES	2 SFP+ (10Gb/port)	4.0" (102mm) x 2.73" (69mm)	11.2
AOC-STGF-i2S	10GbE	Standard LP	PCI-E x8	Intel® X710-BM2	2 SFP+ (10Gb/port)	5.19" (132mm) x 2.73" (69mm)	5.6
AOC-STG-b4S	10GbE	Standard LP	PCI-E x8	Broadcom® BCM57840S	4 SFP+ (10Gb/port)	5.4" (137mm) x 2.73" (69mm)	14
AOC-STG-i4S	10GbE	Standard LP	PCI-E x8	Intel® XL710-BM1	4 SFP+ (10Gb/port)	5.9" (150mm) x 2.73" (69mm)	8
AOC-S25G-m2S	25GbE	Standard LP	PCI-E x8	Mellanox® CX-4 LX	2 SFP28 (25Gb/port)	5.6" (142mm) x 2.713" (69mm)	8.7
AOC-S25G-b2S	25GbE	Standard LP	PCI-E x8	Broadcom® BCM57414	2 SFP28 (25Gb/port)	5.6" (142mm) x 2.713" (69mm)	5.2
AOC-S25G-i2S	25GbE	Standard LP	PCI-E x8	Intel® XXV710	2 SFP28 (25Gb/port)	6.1" (155mm) x 2.713" (69mm)	7.2
AOC-S40G-i1Q	40GbE	Standard LP	PCI-E x8	Intel® XL710-BM1	1 QSFP+ (40Gb/port)	5.9" (150mm) x 2.73" (69mm)	6.5
AOC-S40G-i2Q	40GbE	Standard LP	PCI-E x8	Intel® XL710-BM2	2 QSFP+ (40Gb/port)	5.9" (150mm) x 2.73" (69mm)	7
AOC-S100G-m2C	100GbE	Standard LP	PCI-E x16	Mellanox® CX-4 EN	2 QSFP28 (100Gb/port)	6.6" (168mm) x 2.73" (69mm)	16.3
AOC-S100G-b1C	100GbE	Standard LP	PCI-E x16	Broadcom® BCM57454	2 QSFP28 (100Gb/port)	6.6" (168mm) x 2.73" (69mm)	17.8
AOC-CGP-i2	GbE	MicroLP	PCI-E x4	Intel® i350 AM2	2 RJ45 (1Gb/port)	4.45" (113mm) x 1.54" (39mm)	4
AOC-CTG-i1S	10GbE	MicroLP	PCI-E x8	Intel® 82599EN	1 SFP+ (10Gb/port)	4.85" (123mm) x 1.54" (39mm)	10
AOC-CTG-i2S	10GbE	MicroLP	PCI-E x8	Intel® 82599ES	2 SFP+ (10Gb/port)	4.85" (123mm) x 1.54" (39mm)	11
AOC-CTG-i2T	10GbE	MicroLP	PCI-E x8	Intel® X540-AT2	2 RJ45 (10GBase-T)	4.8" (123mm) x 2.75" (77mm)	13
AOC-CTGS-i2T	10GbE	MicroLP	PCI-E x4	Intel® X550-AT2	2 RJ45 (10GBase-T)	4.45" (113mm) x 1.54" (39mm)	12
AOC-C25G-m1S	25GbE	MicroLP	PCI-E x8	Mellanox® CX-4 Lx EN	1 SFP28 (28Gb/port)	4.45" (113mm) x 1.54" (39mm)	8.5

Contacting Supermicro

Headquarters

Address:	Super Micro Computer, Inc.
	980 Rock Ave.
	San Jose, CA 95131 U.S.A.
Tel:	+1 (408) 503-8000
Fax:	+1 (408) 503-8008
Email:	marketing@supermicro.com (General Information)
	support@supermicro.com (Technical Support)
Website:	www.supermicro.com

Europe

Address:	Super Micro Computer B.V.
	Het Sterrenbeeld 28, 5215 ML
	's-Hertogenbosch, The Netherlands
Tel:	+31 (0) 73-6400390
Fax:	+31 (0) 73-6416525
Email:	sales@supermicro.nl (General Information)
	support@supermicro.nl (Technical Support)
	rma@supermicro.nl (Customer Support)

Asia-Pacific

Address:	Super Micro Computer, Inc.
	4F, No. 232-1, Liancheng Rd.
	Chung-Ho 235, Taipei County
	Taiwan, R.O.C.
Tel:	+886-(2) 8226-3990
Fax:	+886-(2) 8226-3991
Website:	www.supermicro.com.tw
Email:	support@supermicro.com.tw (Technical Support)
Tel:	+886-(2) 8226-5990 (Technical Support)

Table of Contents

Chapter 1

Overview

1-1 Overview

Congratulations on purchasing your add-on card from an acknowledged leader in the industry. Supermicro products are designed with the utmost attention to detail to provide you with the highest standards in quality and performance. For product support and updates, please refer to our website at http://www.supermicro.com/products/nfo/networking.cfm#adapter.

1-2 Key Features

The key features of this add-on card include the following:

- Low-Profile Standard Form Factor in 3.9-inch in Length

- Compac PCI Express 2.1 (2.5GT/s or 5GT/s)

- One RJ-45 port

- Intel® I/O Acceleration Technology (I/O AT) supported

- Support of VMDq, Next-Generation VMDq, and PC-SIG SR-IOV for Virtualized Environments

- Jumbo Frame Support of up to 9.5KB

- IEEE 802.3az – Energy Efficient Ethernet (EEE)

- Low Power Consumption (5W Typical)

- iSCSI Remote Boot support

- Flexible I/O Virtualization and Quality of Service (QoS)

- PXE Boot Support

- RoHS compliant 6/6

1-3   Specifications

General

- Intel® i350 GbE controller

- Compact size low-profile standard form factor

- PCI-E 2.1 x4 (2.5GT/s or 5GT/s) interface

- One RJ-45 connector

- Intel® PROSet Utility for Windows® Device Manager

- Intel® I/O Acceleration Technology (I/O AT)

- Power consumption: about 5W

Ethernet Features

- IEEE 802.3 auto-negotiation for speed, duplex, and flow control

- IEEE 802.3x and 802.3z compliant flow control support

- Automatic cross-over detection function (MDI/MDI-X)

- 1Gb/s Ethernet IEEE 802.3, 802.3u, 802.3ab PHY specifications compliant

- IEEE 1588 protocol and 802.1AS implementation

Power Management and Efficiency

- IEEE 802.3az – Energy Efficient Ethernet (EEE) which reduces power consump-tion of the PHY by about 50%

- DMA Coalescing reduces platform power consumption

- Active State Power Management (ASPM) support

- LAN disable function

- MAC Power Management controls

- Low Power Link Up – Link Speed Control

Virtualization Features

- VM to VM Packet forwarding (Packet Loopback)

- Eight TX and RX queue pairs per port to support VMWare NetQueue and Microsoft VMQ

- Flexible Port Partitioning: 32 Virtual Functions

- PC-SIG SR-IOV implementation

- IEEE 802.1q VLAN support

- IEEE 802.1q advanced packet filtering

Performance Features

- TCP/UDP, IPv4 and IPv6 checksum offloads to improve CPU usage Low Latency Interrupts

- Tx TCP segmentation offload (IPv4, IPv6) increases throughput and lowers processor usage

- Receive Side Scaling (RSS) for Windows environment, Scalable I/O for Linux environments

- Jumbo Frames support up to 9.5K Bytes

- Intelligent interrupt generation

Remote Boot Options

- Preboot eXecution Environment (PXE) support

- iSCSI remote boot for Windows, Linux, and VMware

OS Support

- Windows® XP SP3, Vista SP2, 7 SP1 2003 SP2, 2008 SP2, 2008 R2S

- RedHat EL 5.5, 6.0; SuSe SLES 10 SP3, 11 SP1

- FreeBSD 8.0

- VMware ESX 4.0, 4.1, 5.0

- Xen

Cables Support
- RJ-45 Category-5/5e up to 100m

Operating Conditions
- Operating temperature: 0°C to 55°C (32°F to 131°F)

- Storage temperature: -40°C to 70°C (-40°F to 158°F)

Physical Dimensions
- Card PCB dimensions: 9.91cm (3.90in) x 6.35cm (2.50in) (L x H)

- Height of end brackets: standard – 12cm (4.725in), low-profile – 7.94cm (3.13in)

Compliance/Environmental
- RoHS Compliant 6/6, Pb Free RoHS complaint

Supported Platforms
- Motherboards with minimum PCI-E x4 slot

- Server Systems with low-profile or full-height PCI-E x4 expansion slot

    🖉 **Note:** Please note that this product is only available as an integrated solution with Supermicro server systems. For the most current product information, visit: www.supermicro.com
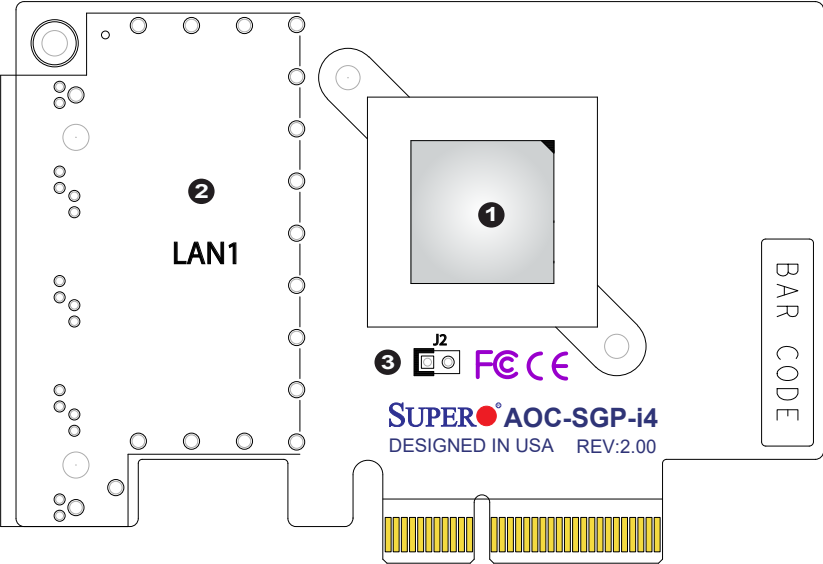
Chapter 2

Hardware Components

2-1   Add-On Card Image and Layout

The AOC-SGP-i4 Image

The AOC-SGP-i4 Layout

2-2   Major Components

The following major components are installed on the AOC-SGP-i4:

1.   Intel® I350 LAN Controller
2.   (RJ45) LAN Port & LED
3.   3.3V Standby Power Enable Jumper

2-3   Connectors: LAN Ports and LAN LED Indicators

Ethernet Ports

One Ethernet port (LAN1) are located on the add-on card. Plug the RJ45 type cables into the LAN Port to provide Ethernet connections. Refer to the add-on card layout on Page 2-2 for the locations of the LAN port.

GLAN Port LEDs

One LAN port are located on the add-on card. Each Ethernet LAN port has two LEDs. The LED on the left indicates activity; while the other LED on the right may be green, orange, or off to indicate the speeds of the connections. See the table at right for more information.

Link LED   **Activity LED**

GLAN Port LEDs		
LED	**Color**	**Definition**
Activity	Green	LAN Active
Link	Green	1Gb/s Link Speed
	Orange	100Mb/s Link Speed
	Off	10Mb/s Link Speed or No Connection

2-4   Jumpers

Explanation of Jumpers

To modify the operation of the add-on card, a jumper can be used to choose between optional settings. A jumper creates shorts between two pins to change the function of the connector. Pin 1 is identified with a square solder pad on the printed circuit board. See the add-on card layout on Page 2-1 for the jumper location.

> ✏ **Note:** On two pin jumpers, "Closed" means the jumper is on and "Open" means the jumper is off the pins.

2-pin Jumper   Jumper Cap

Jumper Off (Open)

Pins 1/2 On (Closed)
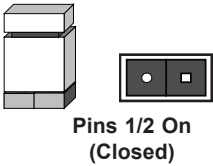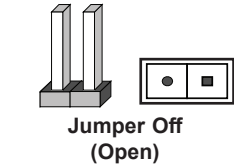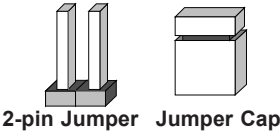
3.3V Standby Power Enable

The 3.3V Standby Power Enable jumper is located at J2 on the add-on card. Refer to the layout on Page 2-1 for the location of the jumper. Close Pins 1 & 2 to enable 3.3V Standby Power for Wake-on-LAN support. The default setting is **Disabled**.

3.3V Standby PWR Enable Jumper Settings	
Jumper setting	Definition
On (1-2)	Enabled (See the note below)
Off	**Disabled** (default)

Notes

Chapter 3

Installation

3-1   Static-Sensitive Devices

Electrostatic Discharge (ESD) can damage electronic components. To avoid dam-aging your add-on card, it is important to handle it very carefully. The following measures are generally sufficient to protect your equipment from ESD.

Precautions

- Use a grounded wrist strap designed to prevent static discharge.

- Touch a grounded metal object before removing the add-on card from the antistatic bag.

- Handle the add-on card by its edges only; do not touch its components, or peripheral chips.

- Put the add-on card back into the antistatic bags when not in use.

- For grounding purposes, make sure that your system chassis provides excellent conductivity between the power supply, the case, the mounting fasteners and the add-on card.

Unpacking

The add-on card is shipped in antistatic packaging to avoid static damage. When unpacking your component or your system, make sure that the person handling it is static protected.

Note: To avoid damaging your components and to ensure proper installa-tion, be sure to always connect the power cord last, and always remove it before adding, removing or changing any hardware components.

3-2   Before Installation

To install the add-on card properly, be sure to follow the instructions below.

1. Power down the system.

2. Remove the power cord from the wall socket.

3. Use industry standard anti-static equipment (such as gloves or wrist strap) and follow the instructions listed on Page 3-1 to avoid damage caused by ESD.

4. Familiarize yourself with the server, motherboard, and/or chassis documentation.

5. Confirm that your operating system includes the latest updates and hotfixes.

3-3   Installing the Add-on Card

Follow the steps below to install the add-on card into your system.

1. Remove the server cover and, if necessary, set aside any screws for later use.

2. Remove the add-on card slot cover. If the case requires a screw, place the screw aside for later use.

3. Position the add-on card in the slot directly over the connector, and gently push down on both sides of the card until it slides into the PCI connector.

4. Secure the add-on card to the chassis. If required, use the screw that you previously removed.

5. Attach any necessary external cables to the add-on card.

6. Replace the chassis cover.

7. Plug the power cord into the wall socket, and power up the system.

3-4   Installing the Windows Operating System

Follow the steps below to install the drivers needed for your Windows OS support. The controller comes with a driver on the CD-ROM CDR-NIC.

1. Run the CDR-NIC. (If you do not have a product CD-ROM, download drivers from the Supermicro Support Website and then transfer them to your system.)

2. When the SUPERMICRO window appears, click on the computer icon next to the product model.
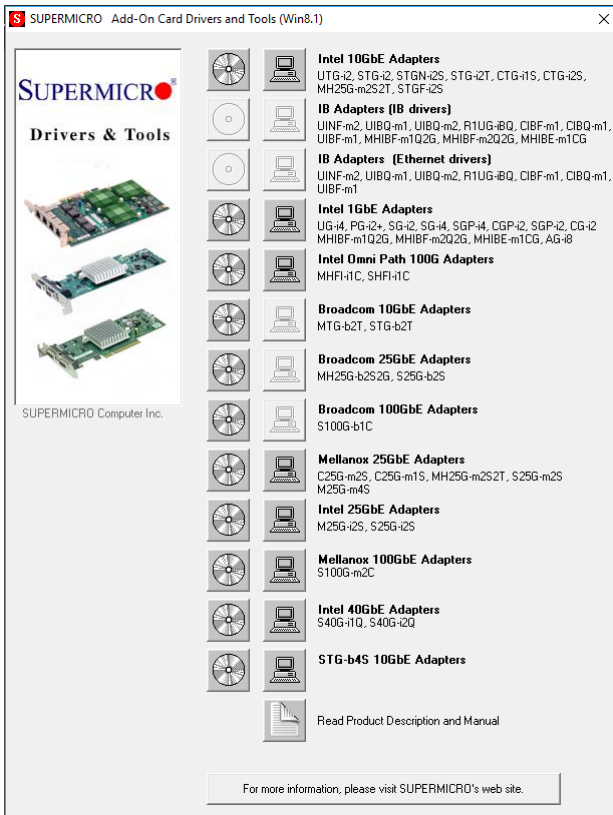
Note: If the *FOUND NEW HARDWARE WIZARD* screen displays on your system, click CANCEL.

3. Click on INSTALL DRIVERS AND SOFTWARE.

4. Follow the prompts to complete the installation.

3-5   Installing the Linux Operating System

Follow the steps below to install the driver to a Linux system.

Build a Binary RPM Package

1.   Run 'rpmbuild -tb <filename.tar.gz>'

2.   Replace <filename.tar.gz> with the specific filename of the driver.

> **Note**: For the build to work properly, the current running kernel MUST match the version and configuration of the installed kernel sources. If you have just recompiled the kernel, reboot the system at this time.

3-6   Building the Driver Manually

Follow the instructions below to build the driver manually.

1.   Move the base driver tar file to the directory of your choice. For example, /home/username/igb

   or

   /usr/local/src/igb.

2.   Untar/unzip archive:

   tar zxf igb-x.x.x.tar.gz

3.   Change to the driver src directory:

   cd igb-x.x.x/src/

4.   Compile the driver module:

   make install

   The binary will be installed as:

   /lib/modules/[KERNEL_VERSION]/kernel/drivers/net/igb/igb.[k]o

   The install locations listed above are the default locations. They might not be correct for certain Linux distributions. For more information, see the ldistrib.txt file included in the driver tar.

> **Note:** IGB_NO_LRO is a compile time flag. The user can enable it at compile time to remove support for LRO from the driver. The flag is used

by adding CFLAGS_EXTRA=-"DIGB_NO_LRO" to the make file when it's being compiled.

make CFLAGS_EXTRA="-DIGB_NO_LRO" install

5. Load the module:

For kernel 2.6.x, use the modprobe command:

modprobe igb <parameter>=<value>

For 2.6 kernels, the *insmod* command can be used if the full path to the driver module is specified. For example:

insmod /lib/modules/<KERNEL VERSION>/kernel/drivers/net/igb/igb.ko

In addition, when using 2.6-based kernels, make sure that older igb drivers are removed from the kernel before loading the new module. To do this, use:

rmmod igb; modprobe igb

6. Assign an IP address to the interface by entering the following, where x is the interface number:

ifconfig ethx <IP_address> netmask <netmask>

7. Verify that the interface works. Enter the following, where <IP_address> is the IP address for another machine on the same subnet as the interface that is being tested:

ping <IP_address>

Notes

(Disclaimer Continued)

The products sold by Supermicro are not intended for and will not be used in life support systems, medical equipment, nuclear facilities or systems, aircraft, aircraft devices, aircraft/emergency communication devices or other critical systems whose failure to perform be reasonably expected to result in significant injury or loss of life or catastrophic property damage. Accordingly, Supermicro disclaims any and all liability, and should buyer use or sell such products for use in such ultra-hazardous applications, it does so entirely at its own risk. Furthermore, buyer agrees to fully indemnify, defend and hold Supermicro harmless for and against any and all claims, demands, actions, litigation, and proceedings of any kind arising out of or related to such ultra-hazardous use or sale.