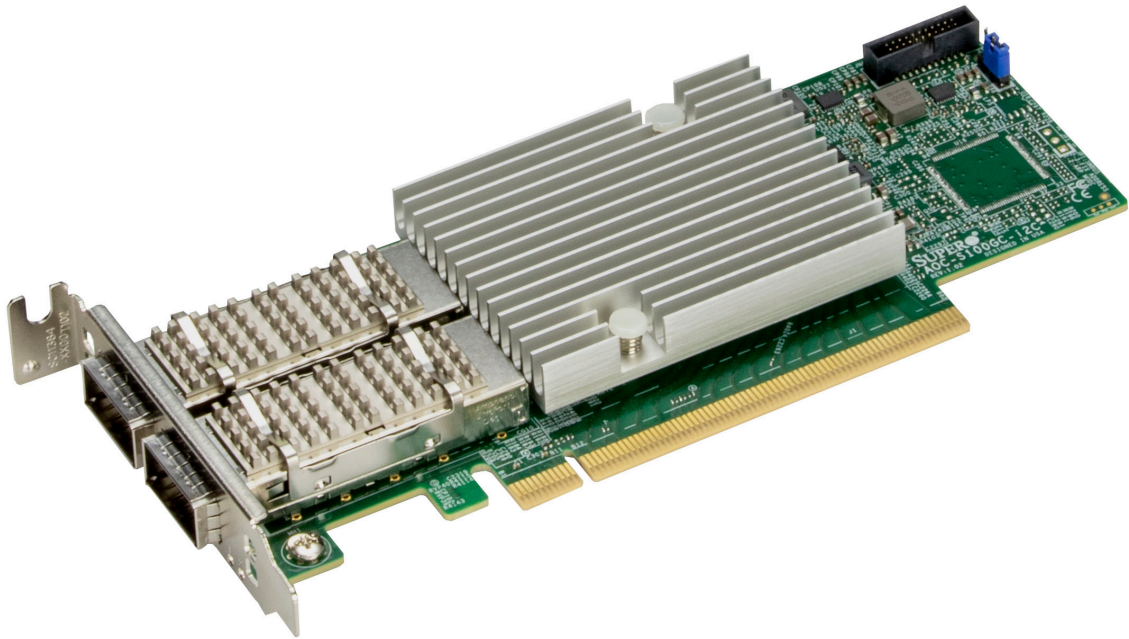




AOC-S100GC-i2C



USER'S MANUAL

Revision 1.0a

The information in this user's manual has been carefully reviewed and is believed to be accurate. The manufacturer 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 manual, or to notify any person or organization of the updates. **Please Note: For the most up-to-date version of this manual, 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 manual 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 manufacturer and 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 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.

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.

Manual Revision 1.0a

Release Date: March 07, 2025

Unless you request and receive written permission from Super Micro Computer, Inc., you may not copy any part of this document. Information in this document is subject to change without notice. Other products and companies referred to herein are trademarks or registered trademarks of their respective companies or mark holders.

Copyright © 2025 by Super Micro Computer, Inc.
All rights reserved.

Printed in the United States of America

Preface

About This Manual

This user's guide is written for system integrators, IT technicians, and knowledgeable end users. It provides information for the installation and use of the AOC-S100GC-i2C add-on card.

About This Add-On Card

The Supermicro® AOC-S100GC-i2C is the most advanced Network-Controller Sideband Interface (NC-SI) Ethernet LAN card on the market today. This add-on card provides unprecedented network interface connectivity with the Intel® E810-CAM2 Controller. Featuring Asset Management for Supermicro system and server platforms, this add-on card supports Advance Device Queue (ADQ), Dynamic Device Personalization (DDP), SR-IOV, multi-queueing, stateless offloads, network overlay, NIC partitioning, IEEE 1394, and RDMA over Converged Ethernet (RoCE). The AOC-S100GC-i2C offers high-performance connectivity and superb remote sideband manageability to meet the growing needs of high-end computing platforms.

An Important Note to the User

All graphic images and layout drawings shown in this user's guide are based upon the latest PCB revision available at the time of publishing this user's guide. The add-on 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 to the manufacturer, the RMA number should be prominently displayed on the outside of the shipping carton and 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, RMA authorizations may be requested online (<http://www.supermicro.com/support/rma/>).

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

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

Conventions Used in the Manual

Special attention should be given to the following symbols for proper installation and to prevent damage done to the components or injury.



Warning! Indicates important information given to prevent equipment/property damage or personal injury.



Warning! Indicates high voltage may be encountered while performing a procedure.



Important: Important information given to ensure proper system installation or to relay safety precautions.



Note: Additional information given to differentiate various models or to provide information for proper system setup.

Important Links

For your system to work properly, follow the links below to download all necessary drivers/utilities and the user's manual for your server.

- Supermicro product manuals: <http://www.supermicro.com/support/manuals/>
- Product drivers and utilities: <https://www.supermicro.com/wdl/driver>
- Product safety info: http://www.supermicro.com/about/policies/safety_information.cfm
- A secure data deletion tool designed to fully erase all data from storage devices can be found at our website: https://www.supermicro.com/about/policies/disclaimer.cfm?url=/wdl/utility/Lot9_Secure_Data_Deletion_Utility/
- If you have any questions, contact our support team at: support@supermicro.com
- Frequently Asked Questions: <https://www.supermicro.com/FAQ/index.php>
- If you have any feedback on Supermicro product manuals, contact our writing team at: Techwriterteam@supermicro.com

This manual may be periodically updated without notice. Check the Supermicro website for possible updates to the manual revision level.

Naming Convention for Networking Adapters

AOC-	A	TG	C	-	i	2	T	M
Prefix	2 nd	3 rd	4th		5th	6th	7th	9th

Character	Representation	Options
Prefix	Product Family	AOC: Add On Card
2nd	Form Factor	S: Standard, P: Proprietary, C: MicroLP, M: Super IO Module (SIOM), MH: SIOM Hybrid A: Advanced IO Module (AIOM), AH: AIOM Hybrid
3rd	Product Type/Speed	G: GbE (1 Gb/s), TG: 10 GbE (10 Gb/s), 25 G: 25 GbE (25 Gb/s), 40 G: 40 GbE (40 Gb/s), 50 G: 50 GbE (50 Gb/s), 100 G: 100 GbE (100 Gb/s), IBE: EDR IB (100 Gb/s), HFI: Host Fabric Interface
4th	Chipset Model (Optional)	N: Niantec (82599), P: Powerville (i350), S: Sageville (X550), F: Fortville (XL710/X710), L: Lewisburg (PCH), C: Carlsville (X710-AT2/ TM4)
5th	Chipset Manufacturer	i: Intel, m: Mellanox, b: Broadcom
6th	Number of Ports	1: 1 port, 2: 2 ports, 4: 4 ports, 8: 8 ports
7th	Connector Type (Optional)	S: SFP/SFP+/SFP28, T: 10GBase-T, Q: QSFP+, C: QSFP28
8th	2 nd Controller/Connector Type (Optional)	G: 1x GbE RJ45, 2G: GbE 2x RJ45, S: 1x 10G SFP+, T: 10GBase-T, 2T: 2x 10GBase-T, 2S: 2x SFP+
9th	Bracket	For AIOM – Non-M: 1U height bracket for Edge systems only, B: 0.5U height bracket (internal lock) for Blade systems only, G: 0.5U height narrow bracket for Grand Twin Front IO systems, M: 0.5U height bracket (Pull Tab) for all other systems.

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)
Sales-USA@supermicro.com (Sales Inquiries)
Government_Sales-USA@supermicro.com (Gov. Sales Inquiries)
support@supermicro.com (Technical Support)
RMA@supermicro.com (RMA Support)
Webmaster@supermicro.com (Webmaster)

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_Europe@supermicro.com (Sales Inquiries)
Support_Europe@supermicro (Technical Support)
RMA_Europe@supermicro (RMA Support)

Website: www.supermicro.nl

Asia-Pacific

Address: Super Micro Computer, Inc.
3F, No. 150, Jian 1st Rd.
Zhonghe Dist., New Taipei City 235
Taiwan (R.O.C)

Tel: +886-(2) 8226-3990

Fax: +886-(2) 8226-3992

Email: Sales-Asia@supermicro.com.tw (Sales Inquiries)
Support@supermicro.com.tw (Technical Support)
RMA@supermicro.com.tw (RMA Support)

Website: www.supermicro.com.tw

Table of Contents

Chapter 1 Introduction

1.1 Overview.....	8
1.2 Key Features.....	8
1.3 Specifications.....	9
1.4 Supported Platform.....	11

Chapter 2 Hardware Components

2.1 Add-On Card Image and Layout.....	12
2.2 Major Components.....	14
2.3 QSFP28 Ethernet Connections.....	15
2.4 Ports and Port LEDs.....	16
2.5 Jumper Settings.....	17
2.6 NC-SI Header.....	18
2.7 PCIe 4.0 x16 Connector.....	19

Chapter 3 Installation

3.1 Static-Sensitive Devices.....	20
3.2 Before Installation.....	21
3.3 Installing the Add-on Card.....	21
3.4 Installing Drivers (for Intel E810-CAM2).....	22
3.5 BIOS HII Port Configuration.....	26
3.6 EPCT (Intel Ethernet Port Configuration Tool).....	28

Chapter 1

Introduction

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 of quality and performance. For product support and updates, refer to our website at <https://www.supermicro.com/en/products/networking/adapters>.

1.2 Key Features

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

- Standard PCIe form factor
- PCIe Gen 4.0 x16 host interface
- Intel E810-CAM2 Controller
- Dual QSFP28 Connectors
- 100 Gbps throughput



Note: The controller is based on Intel E810-CAM2 (100 GbE chip). If both ports are used simultaneously, 100 G bandwidth will be split equally.

- RoCE (RDMA over Converged Ethernet)
- RDMA (iWARP)
- Network overlay: VXLAN, NVGRE, GENEVE
- SR-IOV with up to 256 VFs
- PXE Support
- NC-SI for IPMI support
- Cable support: copper cables, fiber cables, optic cables with optional transceivers
- Physical dimensions: 2.713" x 6.6" (68.91 mm x 167.64 mm) (W x L)

1.3 Specifications

Host Interface

- Supports up to eight PCI physical functions
- Function Level Reset (FLR)
- Message Signal Interrupt (MSI-X)
- Advanced Error Reporting (AER)
- Transaction Processing Hints (TPH)

Networking Features

- Jumbo frames (up to 9600 bytes)
- IEEE 802.3x flow control
- Link Aggregation (IEEE 802.3ad)
- Virtual LANs — IEEE 802.1q VLAN tagging

Stateless Offload Features

- TCP, UDP, IP checksum offloads
- Large Send Offload (LSO)
- Receive Segment Coalescing (RSCO)
- TCP Segmentation Offload (TSO)
- Generic Receive Offload (GRO)
- Receive Side Scaling (RSS)
- Transmit Side Scaling (TSS)
- Accelerated Receive Flow Steering (aRFS)
- Header-Payload Split

Virtualization Features

- NDIS and VMQoS
- SR-IOV
- Edge Virtual Bridging (EVB) — VEB/VEPA support
- VxLAN-aware stateless offloads
- NVGRE-aware stateless offloads
- Geneve-aware stateless offloads
- IP-in-IP-ware stateless offloads
- GRE-aware stateless offloads
- VF Receive-Side Scaling (RSS)/Transmit-Side Scaling (TSS)
- Source pruning and anti-spoofing

RDMA over Converged Ethernet (RoCE)

- RoCEv2
- Congestion control
- Reliable connection (RC) and unreliable datagram (UD)

Manageability

- Network Controller Sideband Interface (NC-SI) over RMII Based Transport (RBT)
- Passive heatsink
- Thermal sensor

Environmental Conditions

- Storage temperature: -40°C to 70°C (-40°F to 158°F)
- Storage humidity: 90% non-condensing relative humidity at 35°C

1.4 Supported Platform

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

- Supermicro motherboards with minimum PCIe x16 expansion slot
- Supermicro server systems with low-profile or full height PCIe 4.0 x16 expansion slot
- NC-SI feature is only supported by Supermicro motherboards with corresponding NC-SI connectors



Note: This product is intended to be used with Supermicro server systems or motherboards as an integrated solution package.

Chapter 2

Hardware Components

2.1 Add-On Card Image and Layout

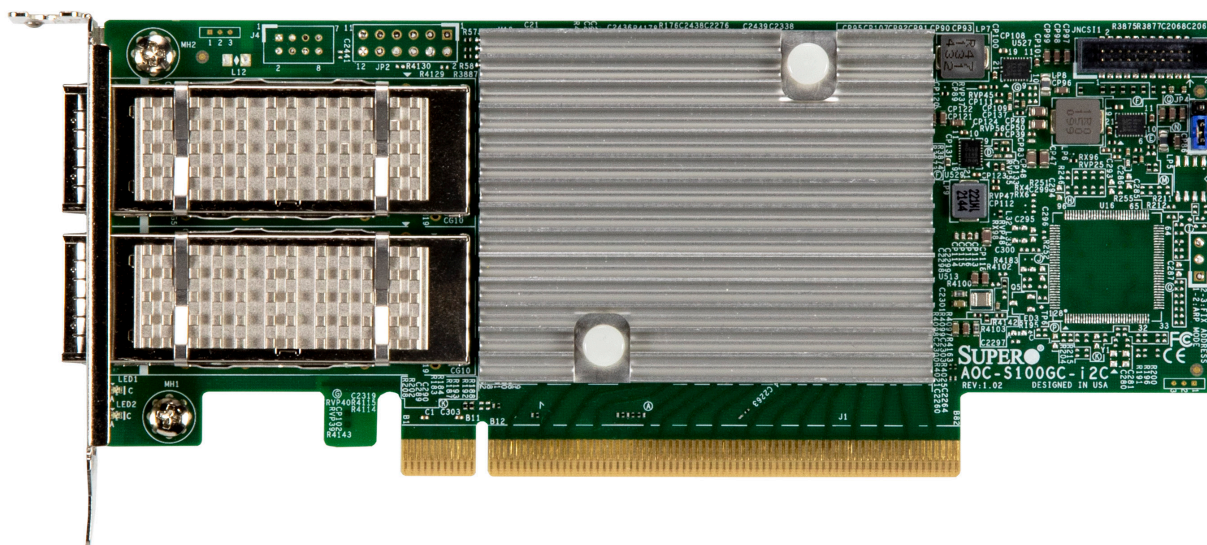


Figure 2-1: AOC-S100GC-i2C Top View

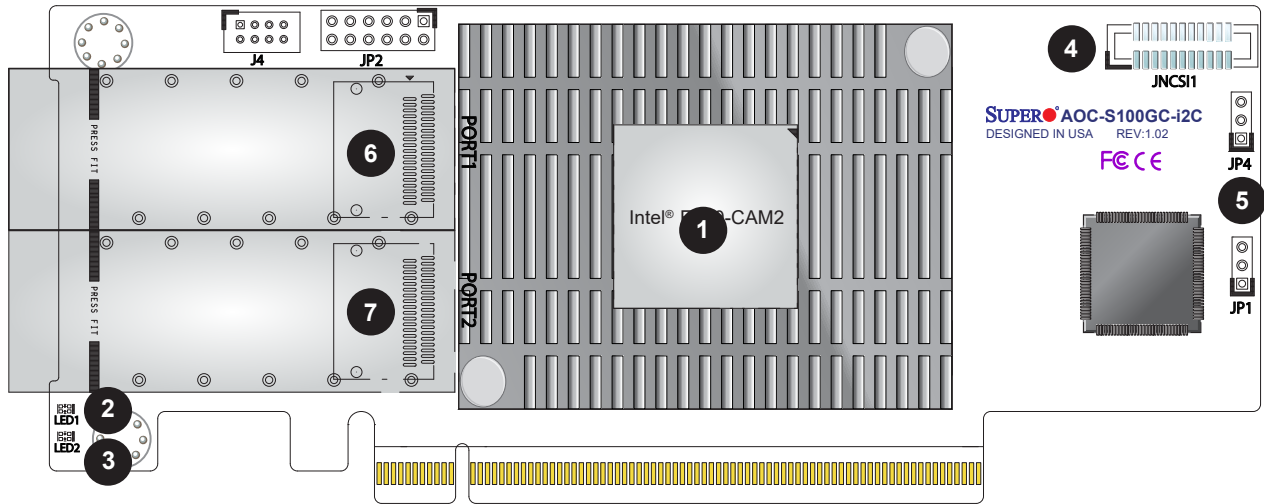


Figure 2-2: AOC-S100GC-i2C Layout

2.2 Major Components

The following major components are installed on the AOC-S100GC-i2C:

AOC-S100GC-i2C Major Components		
No	Component Name	Definition
1	Intel E810-CAM2	100 Gb/s Ethernet LAN controller
2	LED1	QFSP28 Port 1 Link/Active LED
3	LED2	QFSP28 Port 2 Link/Active LED
4	JNCS11	NC-SI header
5	JP4	1–2: Standby Mode disabled (default)
		2–3: Standby Mode enabled
6	Port 1	Quad Small Form-Factor Pluggable 28 (QSFP28) Port 1
7	Port 2	Quad Small Form-Factor Pluggable 28 (QSFP28) Port 2

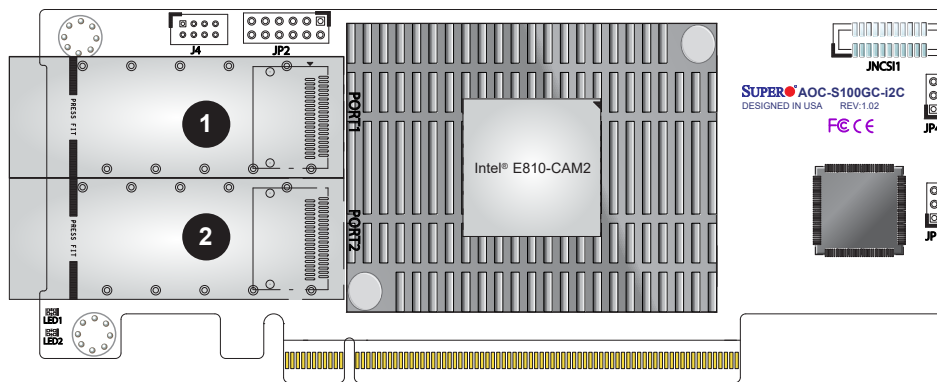


Note: Consult with Supermicro before enabling JP4.

2.3 QSFP28 Ethernet Connections

QSFP28 Connectors

A Quad-Small-Form-Factor-Pluggable 28 (QSFP28) connector is located at Port 1 and Port 2 on the add-on card. The QSFP28 ports operate at up to 100 Gb/s. Plug the Direct Attached Copper (DAC) cable into the QSFP28 ports for network connections.



1. Port 1
2. Port 2

2.4 Ports and Port LEDs

QSFP28 Ports

The QSFP28 adapter ports are located on the PCIe form factor card. Connect a Direct Attach Copper cable or an LC Fiber-Optic cable to the port to provide 100 Gigabit Ethernet communication. Refer to the card layout on [page 13](#) for the location of the QSFP28 ports.

QSFP28 Port LEDs

There are two LED located below the two QSFP28 ports to indicate the link speed and activity of each port. The activity LED will blink when there is activity, but the color will be either green or amber to match the indicated link speed.

QSFP28 Port LEDs		
LED	Color	Definition
Activity	Blinking	Activity
Link	Amber	< 100 Gbps Link Speed
	Green	100 Gbps Link Speed

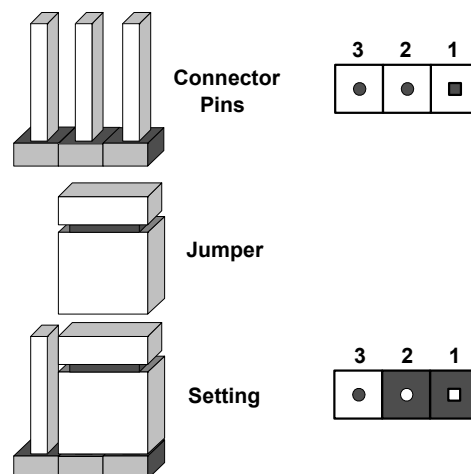
2.5 Jumper Settings

Explanation of Jumpers

To modify the operation of the motherboard, jumpers can be used to choose between optional settings. Jumpers create 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 motherboard layout page for jumper locations.



Note: JP1 is for production use only.

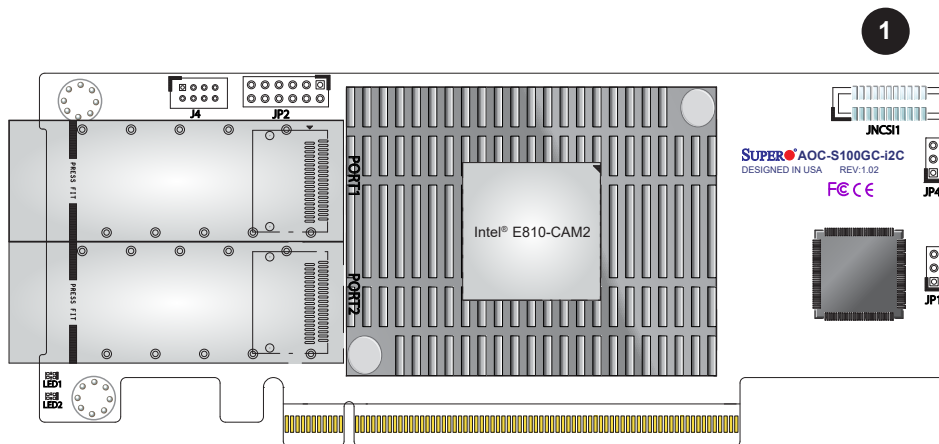


JP4 for NC-SI Standby by Power	IPMI Support	FailOver Support	WoL Support	Function	Notes
Disable = No standby Power to AOC NIC	Yes	Yes	No	Disable jumper to disconnect the standby power	Default
Enable = Standby Power to AOC NIC	Yes	Yes	Yes	Enable jumper to connect standby power to AOC NIC	WoL is supported but limited to platforms with sufficient air-flow when it is in standby mode (S5 state). Consult Supermicro before enabling it.

2.6 NC-SI Header

NC-SI Header

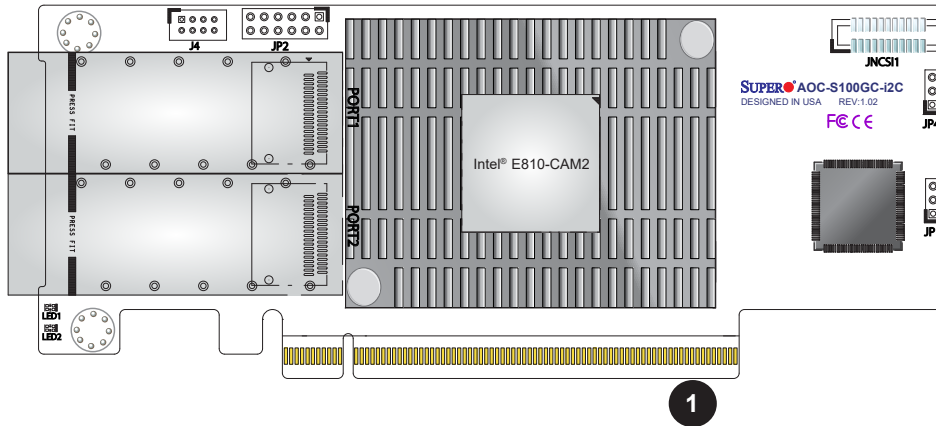
A Network-Controller Sideband Interface (NC-SI) header is located at JNCSI1 on the add-on card. Connect an appropriate cable from this header to a motherboard to provide an out-of-band (sideband) connection between the onboard Intel E810-CAM2 Controller and a Network Interface Controller (NIC) for remote management. For the network sideband interface to work properly, you will need to use a motherboard that supports NC-SI and also need to have a special cable. Contact Supermicro at www.supermicro.com to purchase the cable for this header.



1. NC-SI Header

2.7 PCIe 4.0 x16 Connector

Insert the PCIe 4.0 x16 low-profile standard form factor golden finger into the form factor slot on a motherboard to use this card.



1. PCIe 4.0 x16 Connector

Chapter 3

Installation

Your system came with the AOC-S100GC-i2C add-on card which is designed as a part of an integrated solution. We do not recommend that any part of your system components be removed and re-installed. However, if you do need to remove or re-install a system component, including this add-on card, follow the instructions below to ensure proper system setup. Also, be sure to remove the power cord first before adding, removing, or changing any hardware components to avoid damaging the system or components.

3.1 Static-Sensitive Devices

Electrostatic Discharge (ESD) can damage electronic components. To avoid damaging 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 system, make sure you are static protected.



Note: To avoid damaging your components and to ensure proper installation, always connect the power cord last, and always unplug 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 antistatic equipment (such as gloves or wrist strap) and follow the instructions listed on the prior page 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 hot fixes.

3.3 Installing the Add-on Card

Follow the steps below to install an add-on card into your system. (If the system is fixed onto a rack, the removal of the server top cover is not required. If the system is not anchored to a fixed structure, it is recommended to remove the system top cover for ease of installation.)

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 on the motherboard, and gently push down on both sides of the card until it slides into the PCI connector.
4. Secure the add-on card/motherboard 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 Drivers (for Intel E810-CAM2)

To install drivers for the AOC-S100GC-i2C add-on card for either Linux or Windows, proceed with the following instructions.

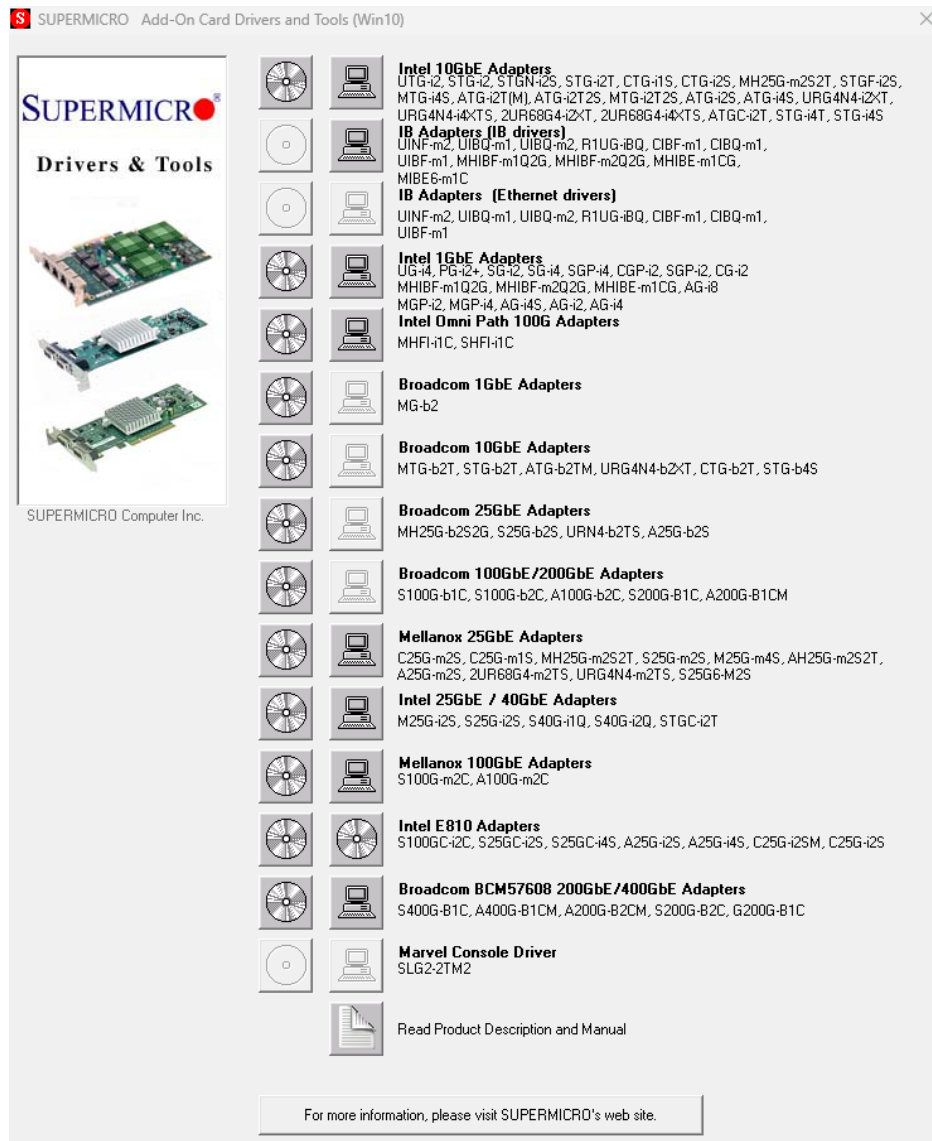


Figure 3-1: Add-On Card and Drivers

Building Drive RPM Package

Follow the steps below to build a binary RPM package for this driver.



Note: RPM functionality has only been tested in Red Hat distributions.

1. Run the following command, where <x.x.x> is the version number for the driver tar file.

```
# rpmbuild -tb ice-<x.x.x>.tar.gz
```



Note: For the build to work properly, the kernel currently running **MUST** match the version and configuration of the installed kernel sources. If you have just recompiled the kernel, reboot the system before building.

2. After building the RPM, the last few lines of the tool output contain the location of the RPM file that was built. Install the RPM with one of the following commands, where <RPM> is the location of the RPM file:

```
# rpm -Uvh <RPM>
```

or

```
# dnf/yum localinstall <RPM>
```



Note 1: To compile the driver on some kernel/arch combinations, you may need to install a package with the development version of libelf (e.g., libelf-dev, libelf-devel, elfutils-libelf-devel).

Note 2: When compiling an out-of-tree driver, users will find that details may vary by distribution. However, you will usually need a kernel-devel RPM or some RPM that provides the kernel headers at a minimum. The RPM kernel-devel will usually fill in the link at `/lib/modules/'uname -r'/build`.

Manually Building a Driver

Follow the steps below to manually build a driver:

1. Move the base driver tar file to the directory of your choice. For example, use '/home/username/ice' or '/usr/local/src/ice'.
2. Untar/unzip the archive, where <x.x.x> is the version number for the driver tar file:

```
# tar xzf ice-<x.x.x>.tar.gz
```

3. Change to the driver src directory, where <x.x.x> is the version number for the driver tar:

```
# cd ice-<x.x.x>/src
```

4. Compile the driver module:

```
# make install
```

The binary will be installed as:

```
/lib/modules/<KERNEL VER>/updates/drivers/net/ethernet/  
intelice/ice.ko
```

The install location listed above is the default location. This may differ for various Linux distributions.



Note: To compile the driver with ADQ (Application Device Queues) flags set, use the following command, where <nproc> is the number of logical cores:

```
# make -j<nproc> CFLAGS_EXTRA='-DADQ_PERF -DADQ_PERF_COUNTERS '  
install
```

This will also apply the above 'make install' command.

5. Load the module using the modprobe command. To check the version of the driver and then load it:

```
# modinfo ice  
# modprobe ice
```

Alternately, make sure that any older ice drivers are removed from the kernel before loading the module:

```
# rmmod ice; modprobe ice
```



Note: To enable verbose debug messages in the kernel log, use the dynamic debug feature (dyndbg). See "Dynamic Debug" later in this README for more information.

6. Assign an IP address to the interface by entering the following, where <ethX> is the interface name that was shown in dmesg after modprobe:

```
# ip address add <IP_address>/<netmask bits> dev <ethX>
```

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>
```

3.5 BIOS HII Port Configuration

Follow the steps below to adjust port configuration in the **BIOS HII** menu. Use the up arrow and down arrow keys to scroll and highlight your chosen option, then press **<Enter>** to select.

1. Navigate to the Advanced menu.
2. Select **E810-C Adapter**.
3. Select **Device Level Configuration**.
4. Select **Port Option Configuration**.

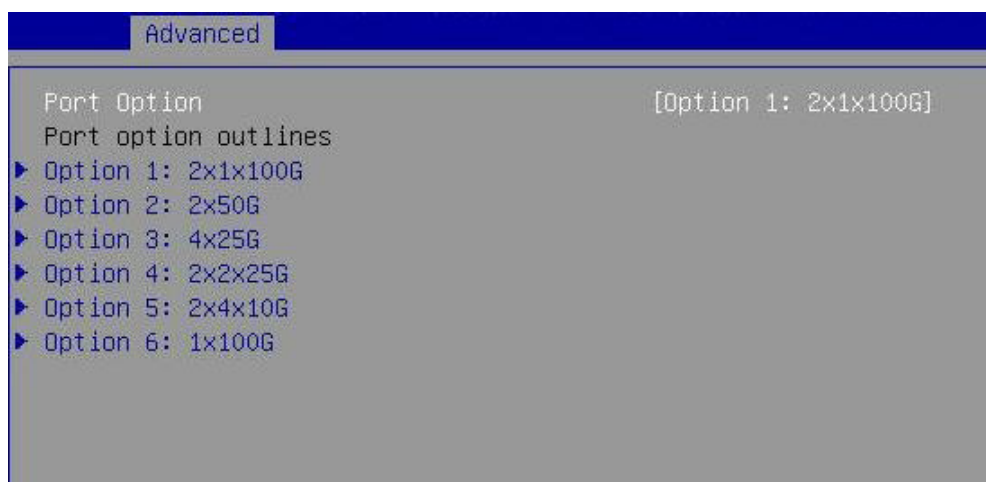


Figure 3-2: Port Option Configuration

5. Select **Port Option**.
6. Select the desired port configuration.



Figure 3-3: Port Option Configuration Menu

7. Navigate to the **Save & Exit** tab.
8. Select **Save Changes and Reset**.
9. Select **Yes** to reboot and apply changes. If you do not want to apply the currently chosen changes, select **No**.

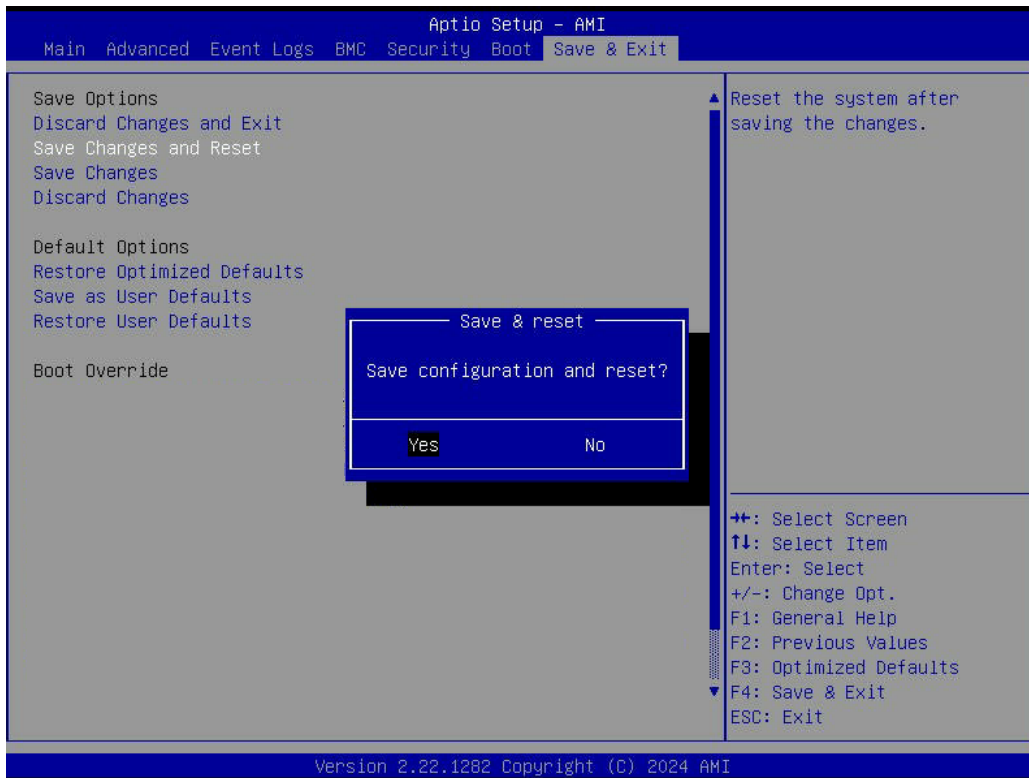



Figure 3-4: Save Configuration

3.6 Intel Ethernet Port Configuration Tool (EPCT)

Download the latest version of Intel Ethernet Port Configuration Tool (all supported OSs) from the Intel Download Center site (<https://downloadcenter.intel.com/download/28931/Intel-Ethernet-Port-Configuration-Tool-All-Supported-OSs->). For more information, see the EPCT readme file from the following site (<https://downloadmirror.intel.com/28931/eng/epct.txt>).

Port Option (Gbps)	Quad 0				Quad 1			
	L0	L1	L2	L3	L4	L5	L6	L7
2x1x100	-> 100	-	-	-	100	-	-	-
2x50	-> 50	-	50	-	-	-	-	-
4x25	-> 25	25	25	25	-	-	-	-
2x2x25	-> 25	25	-	-	25	25	-	-
8x10	-> 10	10	10	10	10	10	10	10
100	-> 100	-	-	-	-	-	-	-

Figure 3-5: AOC-S100GC-i2C Supported Port Options

 **Note:** The reporting interface mapping for EPCT tools corresponds to the following values.

Quad 0 = SMC Port 2

Quad 1 = SMC Port 1

For example, when EPCT is configured to 2x50, 4x25 or 100, SMC Port 2 will be active with the configuration and SMC Port 1 will be disabled.

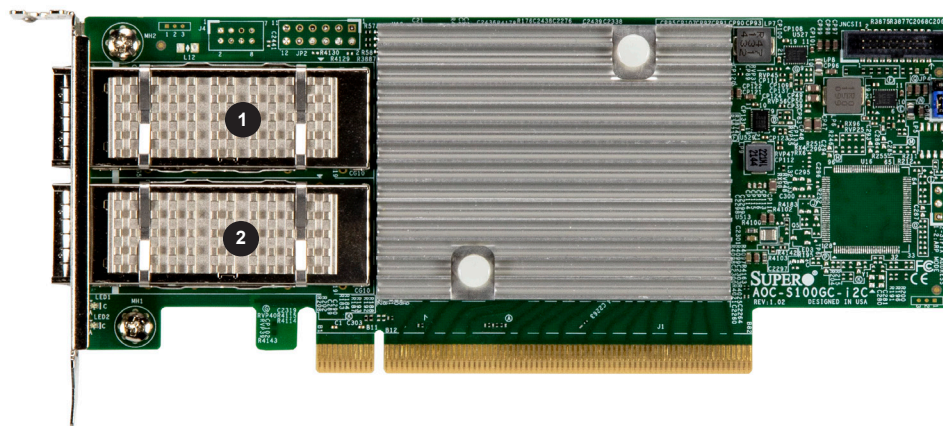


Figure 3-6: Port Locations

Using Basic EPCT Tool Commands in UEFI Environment

Follow the steps below to install and use EPCT Tool Commands in a UEFI environment:

1. Download and unzip EPCT.zip to a removable drive.
2. Insert the removable drive into the system.
3. Select **UEFI: Built-in EFI Shell** from the boot menu.
4. In the UEFI shell, select the removable drive with the following command:

```
fs0:
```



Note: It is usually fs0, but can also be fs1,... etc.

5. Navigate to the EPCT\EFI2_x64 directory.
6. Find corresponding AOC-S100GC-i2C (E810-C) to NIC#. In this example, AOC-S100GC-i2C NIC#=1. Run the following command to find AOC-S100GCi2C NIC#:

```
epct64e.efi -devices branding
```

```
fs0:\EPCT\EFI2_x64> epct64e.efi -devices branding
Intel(R) Ethernet Port Configuration Tool
EPCT version: v1.35.42.07
Copyright(C) 2020 Intel Corporation.

NIC Seg:Bus Ven-Dev   Mode       Adapter Name
=====
1) 000:129 8086-1592 2x1x100   Intel(R) Ethernet Controller E810-C for QSFP


Warning: Any changes to the port option configuration will require a reboot before the device will function correctly.
```

Figure 3-7: Commands Example

7. To check the currently available active and port options, use the NIC# and run the following command:

```
epct64e.efi -nic=1 -get
```

Under the Active Option listing, the "X" will indicate the option currently selected. In the example below, the current active option is 2x1x100 (2 ports with each at 100 G).

 **Note:** Be sure to connect the proper cables to the matching port configuration (ex. connect 2x1x100 = QSFP28).

```
fs0:\EPCT\EFI2_x64> epct64e.efi -nic=1 -get
Intel(R) Ethernet Port Configuration Tool
EPCT version: v1.35.42.07
Copyright(C) 2020 Intel Corporation.

Available Port Options:
=====
Active Port          Quad 0          Quad 1
Option Option (Gbps)   L0 L1 L2 L3  L4 L5 L6 L7
=====
X  2x1x100        -> 100 - - - 100 - - -
   2x50           -> 50  - 50 -  - - - -
   4x25           -> 25 25 25 25 - - - -
   2x2x25        -> 25 25 - - 25 25 - -
   8x10          -> 10 10 10 10 10 10 10 10
   100           -> 100 - - - - - - -
Warning: Any changes to the port option configuration will require a reboot before the device will function correctly.

All actions succeeded.

fs0:\EPCT\EFI2_x64> _
```

Figure 3-8: Current Active Option Example

8. In the example below, the current port option is 4x25G (1 port at 4x25G). This means that Port 2 will be 4x25G and Port 1 will be disabled. Based on that, use the following command to split to other port options:

```
epct64e.efi -nic=1 -set=4x25
```

Then reboot the system to apply changes.



Note: Be sure to connect the proper cables to the matching port configuration (ex. connect 4x25 = Breakout cable QSFP28 to 4xSFP28).

```
fs0:\EPCT\EFI2_x64> epct64e.efi -nic=1 -set=4x25
Intel(R) Ethernet Port Configuration Tool
EPCT version: v1.35.42.07
Copyright(C) 2020 Intel Corporation.

New configuration was set: 4x25
Restart the system to apply the changes.

The port options have changed for this device. You must reboot for the device to function correctly.

All actions succeeded.

fs0:\EPCT\EFI2_x64> _
```

Figure 3-9: Port Option Example

(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.