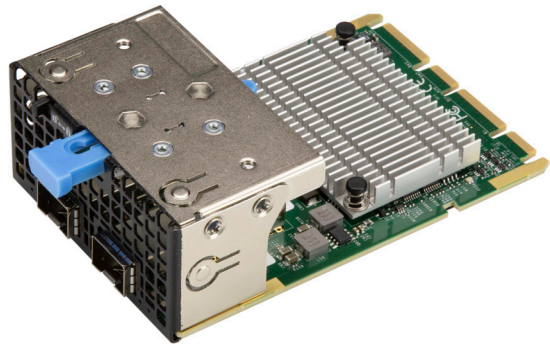
AOC-A25G-b2S



AOC-A25G-b2SM



User's Guide

Revision 1.0

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".

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.



User's Guide Revision 1.0

Release Date: May 12, 2020

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 © 2020 by Super Micro Computer, Inc.
All rights reserved.

Printed in the United States of America

Preface

About this User's Guide

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-A25G-b2S(M) add-on card.

About this Add-on Card

Supermicro® Advanced I/O Modules (AIOM) is the latest form factor designed to provide a wide range of networking options as well as other I/O technologies. The AOC-A25G-b2S(M) is one of the most feature rich 25GbE controllers with low power consumption in the market. Based on the Broadcom® BCM57414 with features such as VXLAN, NVGRE, RoCE, and NIC Partitioning, it provides unparalleled density, performance, and functionality. The Supermicro® AOC-A25G-b2S(M) is the most versatile 25GbE controller in the market and an excellent choice to enhance network connectivity in Data Centers and Enterprise 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 add-on card 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 an RMA authorization online http://www.supermicro.com/RmaForm/.

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 for safety instructions to prevent damage to the system or injury to yourself:

Note: Additional information given for proper system setup.

Naming Convention for Standard Network Adapters



Character	Representation	Options
1st	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 (1Gb/s), TG: 10GbE (10Gb/s), 25G: 25GbE (25Gb/s), 40G: 40GbE (40Gb/s), 50G: 50GbE (50Gb/s), 100G: 100GbE (100Gb/s), IBE: EDR IB (100Gb/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)
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	2nd Controller/Connector Type (Optional)	G: 1x GbE RJ45, 2G: GbE 2x RJ45, S: 1x 10G SFP+, T: 10GBase-T, 2T: 2x 10GBase-T

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

Note: The table above is continued on the next page.

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)
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:	support@supermicro.com.tw
Website:	www.supermicro.com.tw

Table of Contents

Preface

Chapter 1 Overview

1-1 Overview 1-1
1-2 Product Highlights 1-1
1-3 Technical Specifications 1-2

Chapter 2 Hardware Components

2-1 Add-On Card Image and Layout 2-1
2-2 Major Components 2-3
2-3 LED Indicators and Connectors 2-4
2-4 Major Components of AIOM Module 2-6

Chapter 3 Installation

3-1 Static-Sensitive Devices 3-1
Precautions 3-1
Unpacking 3-1
3-2 Before Installation 3-2
3-3 Uninstalling and Installing the AOC-A25G-b2S (with 1U bracket) 3-3
3-4 Uninstalling and Installing the AOC-A25G-b2SM (with 0.5U bracket) 3-6
3-5 Installing Drivers on Windows 3-9
3-6 Installing Drivers (for Broadcom® BCM57414) 3-10
Linux Drivers 3-10
Windows Drivers 3-11

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 Product Highlights

- Advanced I/O Module (AIOM) form factor
- Broadcom® BCM57414 25GbE controller
- Dual SFP28 connectors
- RDMA over Converged Ethernet (RoCE)
- Network overlay: VXLAN, NVGRE, and Geneve
- NIC Partitioning (NPAR)
- Broadcom® TruFlow™ flow processing engine
- Asset Management features with thermal sensor
- NC-SI for Remote Management
- RoHS compliant 6/6

1-3 Technical Specifications

General

- Advanced I/O Module (AIOM) form factor
- Broadcom® BCM57414 25GbE controller
- Dual SFP28 ports

Networking Features

- Jumbo frames (up to 9.6 KB)
- IEEE 802.3x flow control
- IEEE 1588 protocol and Time Sync
- IEEE 802.3ad Link Aggregation
- Virtual LANs- 802.1q VLAN tagging
- Configuring Flow Acceleration
- PXE, UEFI, iSCSI remote boot

Stateless Offload Features

- TCP, UDP, and IP checksum offloads
- IPv4 and IPv6 offloads
- Large Send Offload
- Receive Segment Coalescing
- TCP Segmentation Offload
- Large Receive Offload
- Receive Side Scaling (RSS)

- Transmit Side Scaling (TSS)
- Accelerate Received Flow Steering (RFS)

NIC Partitioning (NPAR)

- 16 Physical Functions
- QoS per partition
- Partitioning control via sideband communication
- Up to 64 MAC/VLAN filter per partition
- Per partition statistics support
- Stateless offloads configuration per partition
- VEB/VEPA support

Virtualization Features

- NetQueue, VMQueue, and Multiqueue
- SR-IOFV with up to 128 Virtual Functions (VFs)
- Network overlay: VXLAN, NVGRE, and Geneve
- Edge Virtual Bridging (EVB)

RDMA over Converged Ethernet (RoCE)

- RoCEv1 and RoCEv2
- Data Center Bridging with RoCE

Flow Processing

- Exact/Wildcard Match Flow Lookup
- VLAN insertion/deletion

- NAT/NAPT/Mirroring

Data Center Bridging

- Priority-based Flow Control (PFC; IEEE 802.1Qbb)
- Enhanced Transmission Selected (ETS; IEEE 802.1Qau)
- Quantized Congestion Notification (QCN; IEEE 802.1Qau)
- Data Center Bridging Capability eXchange (DCBX; IEEE 802.1Qaz)
- 8 traffic classes per port; fully DCB compliant per 802.1bb

Power Savings:

- ACPI compliant power management
- PCI Express Active State Power Management (ASPM)
- Ultra-low-power mode
- Pass-through Energy Efficient Ethernet (IEEE 802.3az-2010)

Power Consumption

- Maximum 7.7W

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)
- Storage humidity: 90% non-condensing relative humidity at 35°C

Physical Dimensions

- Card PCB dimensions: 76mm x 115mm (W x D)

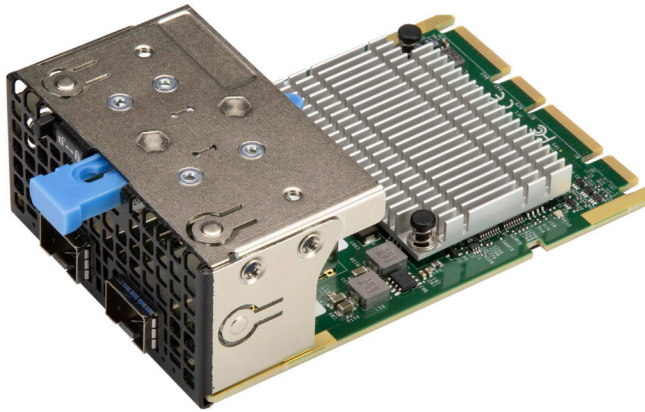
Note: This product is only sold as part of an integrated solution with Supermicro server systems.

SKUs	Bracket Included	Description
AOC-A25G-b2S	BKT-0165L	2-port 25 Gigabit Ethernet Adapter with an 1U height bracket
AOC-A25G-b2SM	BKT-0166L	2-port 25 Gigabit Ethernet Adapter with a 0.5U height bracket

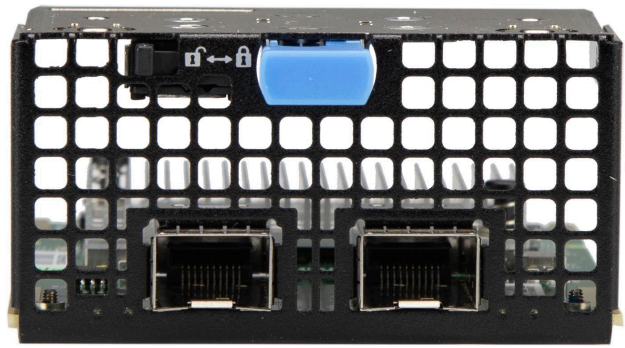
Chapter 2

Hardware Components

2-1 Add-On Card Image and Layout



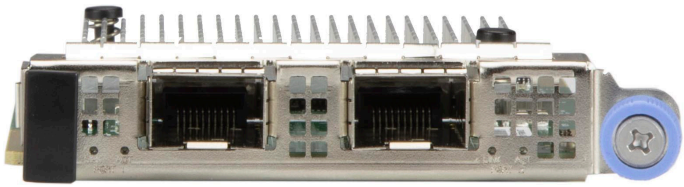
Side view of the AOC-A25G-b2S



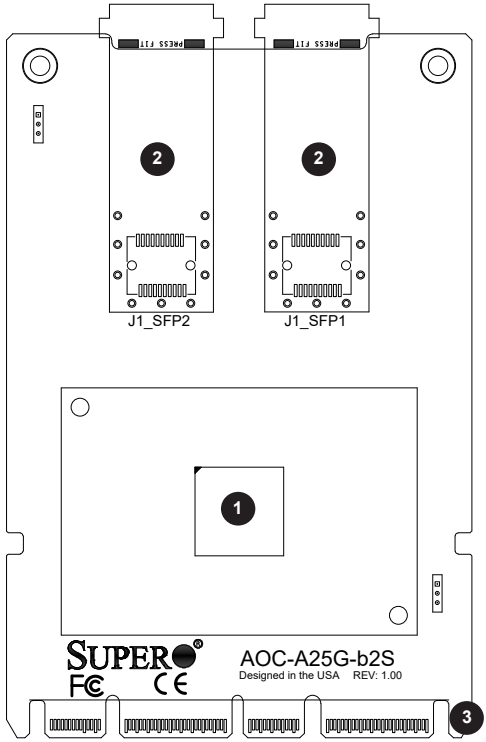
Front view of the AOC-A25G-b2S



Side view of the AOC-A25G-b2SM



Front view of the AOC-A25G-b2SM



1. BCM57414 25GbE controller
2. Dual 25G SFP28 ports
3. PCIe 3.0 x8

2-2 Major Components

The following components are on the AOC-A25G-b2S(M):

1. One BCM57414 25GbE controller
2. Dual 25G SFP28 ports
3. PCIe 3.0 x8 interface

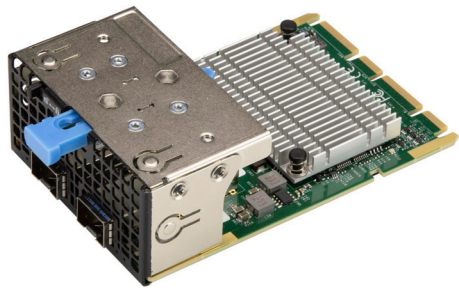
2-3 LED Indicators and Connectors

LAN Ports

The AOC-A25G-b2S(M) has two network LAN (SFP28) ports. These LAN ports support connection speeds up to 1Gbps. Plug the Direct Attached Copper (DAC) cable into the SFP28 port for network connections.

Note 1: To make sure that LAN port functions properly, be sure to use the following cable specified by the manufacturer.

Note 2: For detailed information on the cable and transceiver recommended by the manufacturer, please refer to "Optional Accessories" on Page 1-4 or SMC product information posted online.



The AOC-A25G-b2S

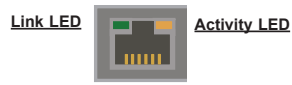


The AOC-A25G-b2SM

LED	Color	Definition
Link (Left)	Amber	10 Gbps Link Speed
	Green	25 Gbps Link Speed
Activity (Right)	Green Flashing	Activity

LAN LED

Each SFP28 connector has two LEDs. The LED on the left indicates link speeds, and the LED on the right indicates the status of the activity of the connector. See the table above for more information.



2-4 Major Components of AIOM Module

The major components of the Supermicro® Advanced I/O Modules (AIOM) are the card and bracket. Before a computer system can operate, all slots are required to be populated. If an AIOM module is used, this means the bracket must be firmly installed into the chassis. This will ensure that the card that is installed to the bracket is seated securely in the motherboard connector. For instructions on how to install and uninstall an AIOM module please refer to chapter 3.

Chapter 3

Installation

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.
- 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 that 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

Before you install the add-on card, follow the instructions below.

1. Power down the system.
2. Unplug the power cord.
3. Use industry-standard anti-static equipment such as gloves or a wrist strap and follow the precautions 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.

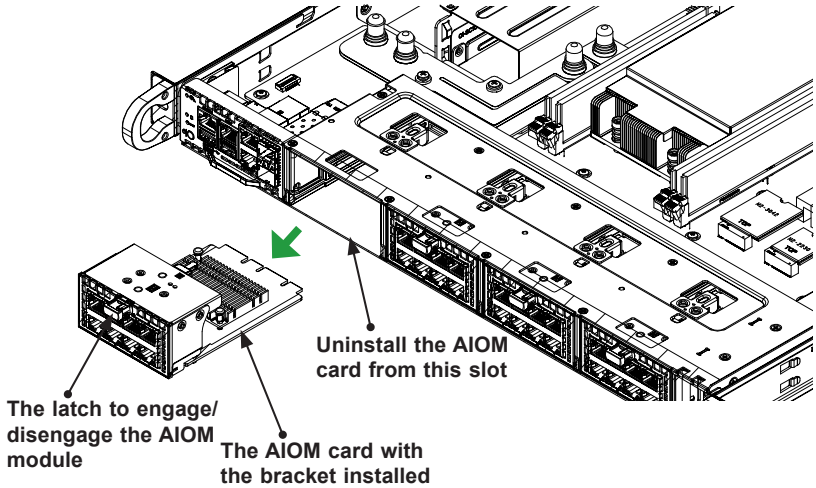
3-3 Uninstalling and Installing the AOC-A25G-b2S (with 1U bracket)

Follow the steps below to install an add-on card into your system. (If the system is fixed onto a rack, the removal of 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.)

A. Uninstalling an AIOM Module

1. Slide the black latch to the left to "unlock" position, then disengage the AIOM module from the chassis structure by pushing the blue latch once to extend it outward.

2. Pull the blue latch to disengage the AIOM module from the motherboard connector, then gently slide the AIOM module out.



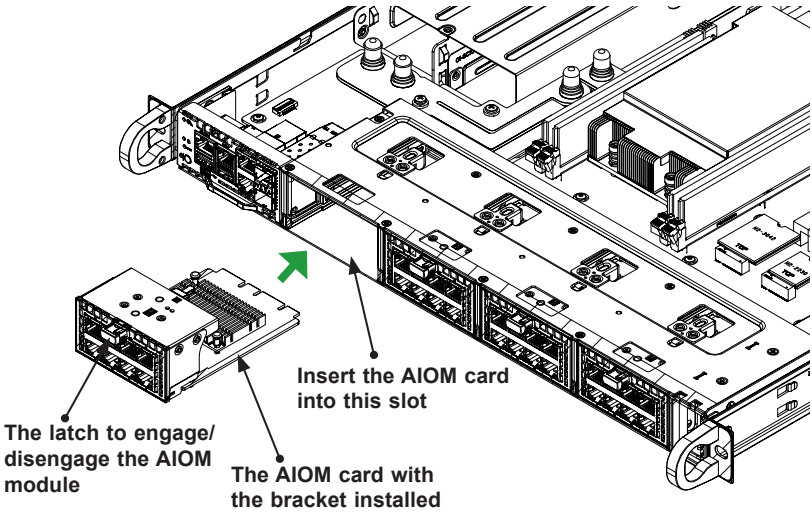
B. Installing an AIOM Module

1. Position the AIOM module in front of the empty slot and gently push onto the metal bracket (do not use the blue latch). The AIOM module should slide into the chassis until the card securely seated in the connector.

2. Press the blue latch to properly secure it onto the chassis and move the black latch to the right to "lock" position.



Black Latch



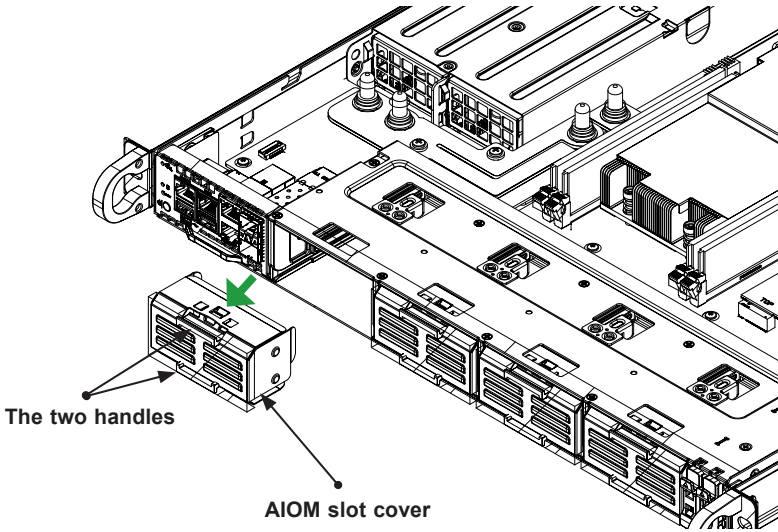
Note: A computer system should not be operating with an empty AIOM slot. All slots should be populated with AIOM modules, AIOM slot covers, or combinations of both.

C. Installing an AIOM Module (with an AIOM Slot Cover)

1. Remove the AIOM slot cover by pulling it with two handles.

2. Position the AIOM module in front of the empty slot and gently push onto the metal bracket (do not use the blue latch). The AIOM module should slide into the chassis until the card is fully seated inside the connector.

3. Press the blue latch to secure it onto the chassis structure.



Note: This AIOM module does not support hot plug. Please turn off the AC power and remove the power cord from the wall socket before installing or removing an AIOM module.

3-4 Uninstalling and Installing the AOC-A25G-b2SM (with 0.5U bracket)

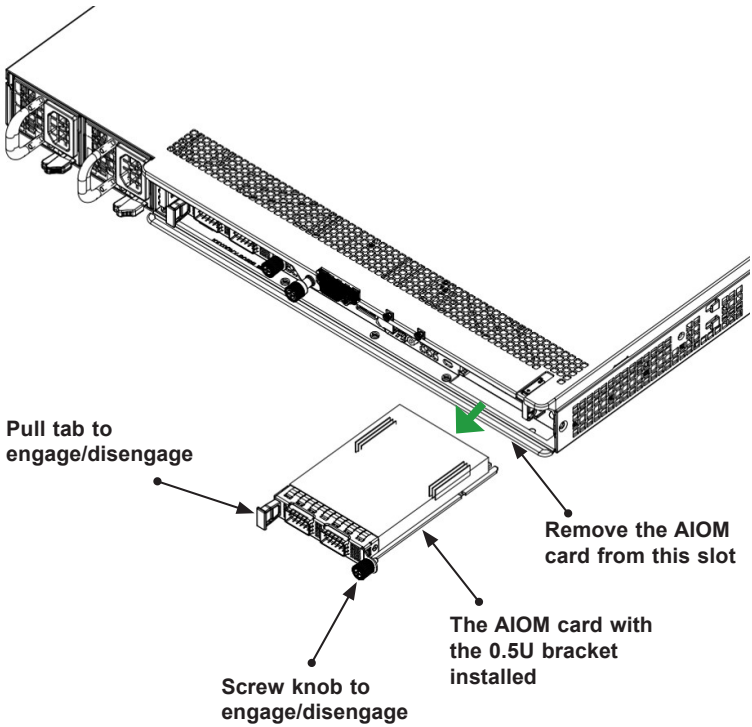
Follow the steps below to install an add-on card into your system. (If the system is fixed onto a rack, the removal of server top cover is not required. If the system is not anchored to a fixed structure, it is recommended to remove the system top cover for ease of installation.)

A. Uninstalling an AIOM Module – AOC-A25G-b2SM

1. Unscrew the blue knob from the system.

2. Pull on the tab and knob evenly on both sides of the card to disengage the AIOM module from the motherboard connector.

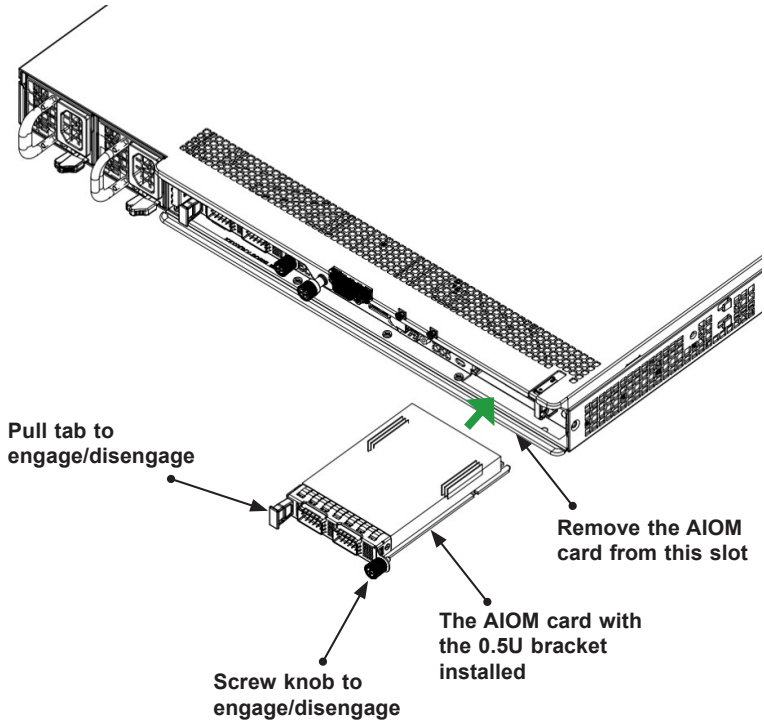
3. Gently slide the AIOM module out.



B. Installing an AIOM Module – AOC-AG-i4SM

1. Position the AIOM module in front of the empty slot and gently push onto the metal bracket. The AIOM module should slide into the chassis until the card is securely seated in the connector.

2. Press the blue knob and secure it onto the chassis by turning the knob clockwise.

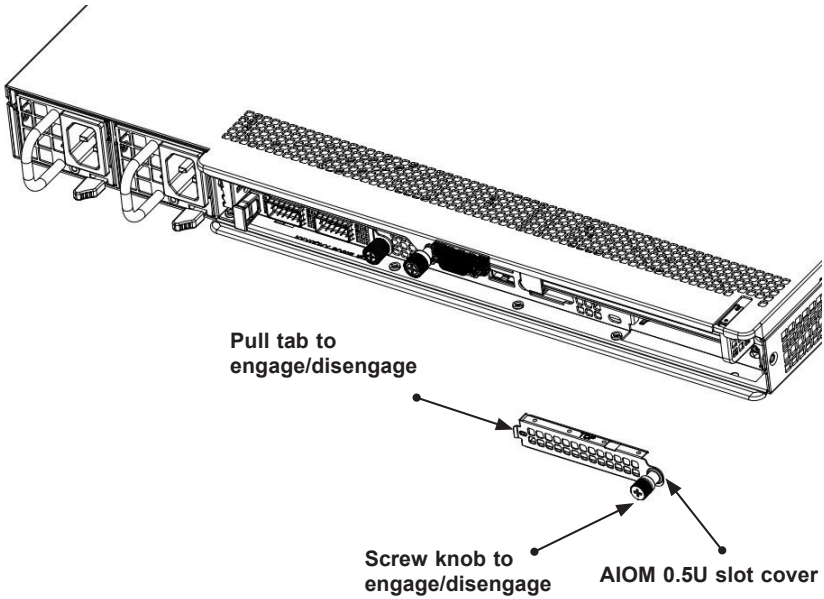


C. Installing an AIOM Module (with an AIOM Slot Cover)

1. Remove the AIOM slot cover by unscrewing the knob and screw that attaches the bracket to the chassis. Pull the bracket away and set it aside.

2. Position the AIOM module in front of the empty slot and gently push onto the metal bracket. The AIOM module should slide into the chassis until the card is securely seated in the connector.

3. Press the blue knob and secure it onto the chassis by turning the knob clockwise.



Note 1: This AIOM module does not support hot plug. Please turn off the AC power and remove the power cord from the wall socket before installing or removing an AIOM module.

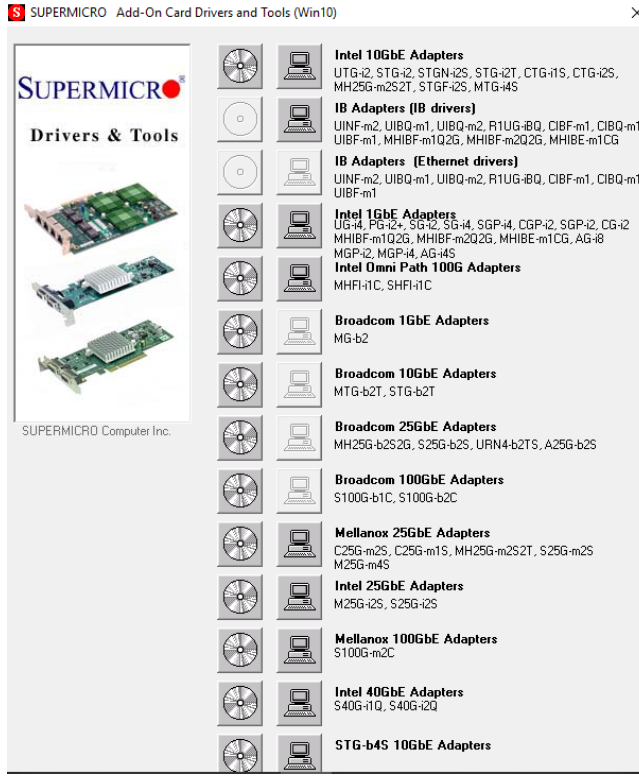
Note 2: Pictures shown above are for illustration purposes only. Actual products may vary due to product enhancement.

3-5 Installing Drivers on Windows

Follow the steps below to install the drivers for the Windows operating systems. Download the drivers from Intel Download Center or the Supermicro site at https://www.supermicro.com/wftp/Networking_Drivers.

1. Run CDR-NIC.

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.

3-6 Installing Drivers (for Broadcom® BCM57414)

Use the procedures below to install both drivers and firmware for the AOC-A25G-b2S(M) add-on card for both Linux and Windows.

Linux Drivers

Use the following procedures to install drivers on the Linux operating system. Download the drivers from ftp://ftp.supermicro/Networking_Drivers/

Installing 25G Drivers for the Linux Operating System

1. Prerequisites: Install the following:

   ```
   yum -y install libibverbs* infiniband-diags perftest
   qperf librdmacm-utils

   yum -y install groupinstall "InfiniBand Support"
   ```

2. From the CDR-NIC LAN driver CD or FTP site, go to the following directory: Broadcom > 25G > Linux_Driver.

3. Download the Linux driver package file netxtreme-bnxt_en-<ver>.tar.gz.

4. Install the driver by entering the following commands:

   ```
   tar xzvf nextreme-bnxt_en-<ver>.tar.gz

   cd nextreme-bnxt_en-<ver>

   make build

   make install
   ```

5. You will need to install RoCE library if you want to use RoCE.

6. From the CDR-NIC LAN driver CD or FTP site, go to the following directory: Broadcom > 25G > Linux_RoCE_Lib.

7. Download libbnxtre-<ver>.tar.gz.

8. Install the library by entering the following commands:

   ```
   tar xvzf libbnxtre-<ver>.tar.gz

   cd libbnxtre-<ver>.tar.gz
   ```

```
./configure

make

make install

cp bnxtre.driver /etc/libibverbs.d/

echo "/usr/local/lib" >> /etc/ld.so.conf

ldconfig -v
```

Windows Drivers

Use the following procedures to install drivers on the Windows operating system.

Installing 25G Drivers for the Windows Operating System

1. From the CDR-NIC LAN driver CD or FTP site, go to the following directory: Broadcom > 25G > Windows.
2. Choose the desired Windows driver package folder.
3. Drivers are in .inf format. You can install the driver from Device Manager.