

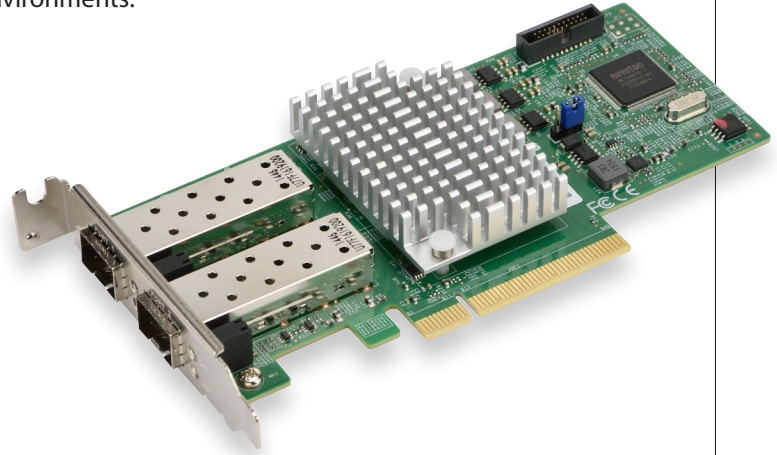
# AOC-S25G-B2S



The Supermicro AOC-S25G-b2S is one of the most feature rich and versatile 25GbE controllers in the market. Based on the Broadcom® BCM57414 chipset with features such as VXLAN and NVGRE, it is backward compatible with 10GbE network and the most cost effective upgrade from 10GbE to 25GbE in data center or cloud deployments. The unique features including TruFlow and NPAR (NIC Partitioning) technology provide flexible connectivity for different networking requirements. Supermicro® Asset Management and thermal detection give the extra layer of controller health management and a peace of mind. The Supermicro AOC-S25G-b2S is one of the most versatile 25GbE controllers in the market and an excellent choice to enhance network connectivity in data centers and enterprise environments.

## Key Features:

- **Dual SFP28 Connectors**
- **Low-Profile, Short Length Standard Form Factor**
- **PCI-E 3.0 x8 interface**
- **Asset Management Features with thermal sensor**
- **Broadcom Dual-Port 25 Gbps PCI Express Gen3 Ethernet Controller**
- **Energy Efficient Ethernet (EEE)**
- **Data Center Bridging (DCB)**
- **IEEE1588 Time Sync**
- **TruFlow**
- **NPAR**
- **VXLAN and NVGRE**
- **NetQueue, VMQueue, and Multiqueue**
- **PCI-SIG SR-IOV compliant**
- **Jumbo Frames support up to 9600-Byte**
- **NC-SI for IPMI support**
- **RoHS compliant 6/6**



## Specifications

- **General:**
  - Broadcom BCM57414 dual-port 25Gbps controller
  - Compact size low-profile standard form factor
  - PCI-E 3.0 x8 (8GT/s, 5GT/s or 2.5GT/s) interface
  - Dual SFP28 connectors
  - Typical power consumption: 5.2W
- **Host Interface:**
  - PCI-E v3.0 (8GT/s)
  - MCTP over SMBus
  - Function Level Reset (FLR) support
  - Message Signal Interrupt (MSI-X)
- **Networking features:**
  - Jumbo frames (up to 9600-Byte)
  - 802.3x flow control
  - Link Aggregation (802.3ad)
  - Virtual LANs- 802.1q VLAN tagging
  - Configurable Flow Acceleration
  - IEEE 1588 and Time Sync
- **Stateless Offload Features:**
  - TCP, UDP, IPv4, IPv6 checksum offload
  - Large Send Offload
  - Receive Segment Coalescing
  - TCP segmentation Offload
  - Large Receive Offload
  - Receive Side Scaling (RSS)
  - Transmit Side Scaling (TSS)
- **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
  - Support for 128 Virtual Functions
  - VXLAN
  - NVGRE
  - Geneve
  - Edge Virtual Bridging (EVB)
- **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 selection (ETS; IEEE802.1Qau)
  - Quantized congestion Notification (QCN; IEEE802.1Qaz)
  - Data Center Bridging Capability eXchange (DCBX; IEEE802.1Qaz)
  - 8 traffic classes per port; fully DCB compliant per 802.1Qbb
- **Manageability:**
  - Network Controller Sideband Interface (NC-SI)
  - PXE v2.1 remote boot
  - Asset Management with Thermal Sensors
- **Power Savings:**
  - ACPI compliant power management
  - PCI Express Active State Power Management (ASPM)
  - Ultra low-power mode
  - Pass-through Energy Efficient Ethernet (IEEE802.3az-2010)
- **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: 14.224cm x 6.89cm (5.6in x 2.71in) (LxW)
  - Height of end brackets: standard – 12cm (4.725in), low-profile – 8cm (3.15in)
- **Weight:**
  - 90.5g (0.2lb)

## Supported Platforms

- Supermicro motherboards with minimum PCI-E x8 slot
- Supermicro server systems with low-profile or full-height PCI-E x8 expansion slot
- NC-SI requires motherboards and system with compatible connector

For the most current product information, visit:

[www.supermicro.com](http://www.supermicro.com)