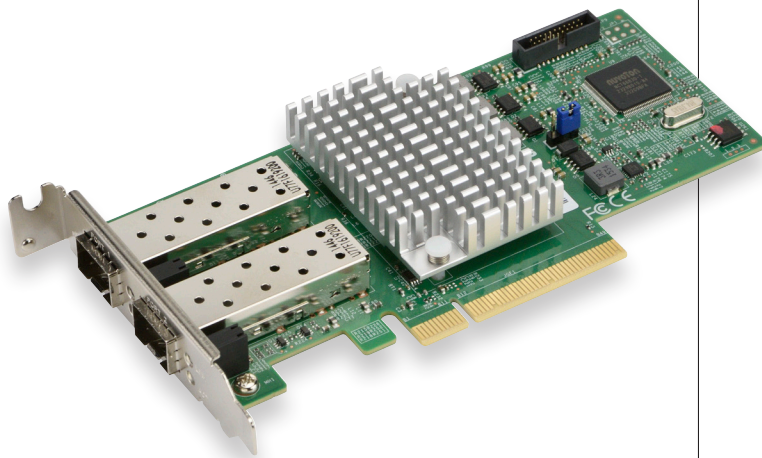


The Supermicro AOC-S25G-b2S is the latest 25GbE controller in the market. Based on the Broadcom BCM57414 chipset with features such as VXLAN and NVGRE, it is backward compatible with 10GbE network and the most cost effective upgrade from 10GbE to 25GbE in the data center or cloud deployments. The unique features including TruFlow and NPAR (NIC Partitioning) technology provide flexible connectivity for different networking requirements. Supermicro (R) 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 SFP+ Connectors
- Low-Profile, Short Length Standard Form Factor
- PCI Express v3.0 x8
- Asset Management Features with thermal sensor
- Broadcom Dual-Port 25 Gbps PCI Express Gen3 Ethernet Controller
- IEEE802.3x, IEEE802.3ad, IEEE802.1q
- IEEE802.3az-2010 Energy Efficient Ethernet (EEE)
- Data Center Bridging (DCB): IEEE802.1Qbb, IEEE802.1Qaz, IEEE802.1Qau
- IEEE1588 Time Sync
- TruFlow
- NPAR
- VXLAN and NVGRE
- NetQueue, VMQueue, and Multiqueue
- PCI-SIG SR-IOV compliant
- Jumbo Frames support up to 9600-Byte
- PXE Support
- NC-SI for IPMI support
- RoHS compliant 6/6



Specifications

- **General:**
 - Broadcom 57414 dual-port 25Gbps controller
 - Compact size low-profile standard form factor
 - PCI-E x8 v3.0 (8GT/s, 5GT/s or 2.5GT/s) interface
 - Dual SFP+ connectors
 - Typical power consumption: 5.2W
- **Host Interface:**
 - PCI-E v3.0
 - o Gen3 signaling 8GT/s
 - o Gen2 signaling 5GT/s
 - o Gen1 signaling 2.5GT/s
 - MCTP over SMBus
 - Function Level Reset (FLR) support
 - Message Signal Interrupt (MSI-X)
- **Networking features:**
 - Jumbo frame (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; IEEE802.1Qau)
 - 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
- **Power Saving:**
 - 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:**
 - 90.49g (0.1995lb)

For the most current product information, visit:

www.supermicro.com

Similar Products

Product Part Number	Form Factor	Speed	PCI-E	Connector Type	Total Ports	Chipset
AOC-STG-i4S	Standard Low Profile	10GbE	PCI-E 2.0 x8	SFP+	4	Intel XL710
AOC-STG-b4S	Standard Low Profile	10GbE	PCI-E 3.0 x8	SFP+	4	Broadcom BCM57840S
AOC-STGN-i1S	Standard Low Profile	10GbE	PCI-E 2.0 x8	SFP+	1	Intel 82599EN
AOC-STGN-i2S	Standard Low Profile	10GbE	PCI-E 2.0 x8	SFP+	2	Intel 82599ES
AOC-STG-i2T	Standard Low Profile	10GbE	PCI-E 2.1 x8	10GbE	2	Intel X540