

SCB-1946

Performance Network Appliance

AWIN Technologies Co., Ltd.

2U/4U Rackmount Dual socket SP5 AMD Genoa/Bergamo processors Network System, support DDR5 RDIMM up to 2TB, 16x PCIe Gen4 x8 slot for Network Expansion Module, 2x 2.5", SATA HDD hot-swappable, IPMI, USB 3.0, 2x 1GbE, 1x Console, CF/mSATA/miniPCI-E, M.2, Redundant PSU



Features

- Support dual socket SP5 AMD Genoa/Bergamo processors
- Support up to 2TB DDR5 RDIMM/LRDIMM 4800MHz
- 4x PCIe Gen5 x8 and 4 x PCIe Gen4 x8 slots for Network Expansion Module for 2U, 4x PCIe Gen5 x8 and 16 x PCIe Gen4 x8 slots for Network Expansion Module for 4U
- Support BMC/IPMI & hardware One-Key Bypass function

Description

The SCB-1946 is a 2U/4U Rack-Mount Network Appliance supporting dual AMD® Zen4 Genoa/Bergamo processors with breakthrough computing performance. It is with increased CPU cores up to 96 cores per EPYC 9004 processor.

The SCB-1946 supports 16x channels DDR5 RDIMM (up to 4800 MHz) and 4x PCIe Gen5 x8 plus up to 16 x PCIe Gen4 x8 slots for Network Expansion Module. Multiple different ethernet modules are available for flexible port configuration, such as 1/10/40/100 Gigabit fiber and Gigabit Copper/Fiber with or without BYPASS function. And the expansion bay can flexibly support 2x 2.5" U.2 NVMe SSD tray, and GPU/FPGA add-on card swappable tray. SCB-1946 is an ideal computing server for Edge and AI workloads.

The strong IO elements of SCB-1946 include 2x management port (one for management, another for onboard BMC/IPMI function), a console port, 2x USB 2.0, a graphic LCD module. In addition, the SCB-1942 also supports 2x 2.5" SATA HDDs/SSDs hot-swappable, onboard CF/mSATA/miniPCI-E, and M.2 slot for basic network storage application.

Specifications

▼ Processor System

CPU	Support dual socket SP5 AMD Genoa/Bergamo processors
System Bus	xGMI up to 32Gbp/s
BIOS	AMI® UEFI BIOS

▼ Memory

Technology	Total 16 DIMMs (8 channels per CPU, 1x DIMM per channel, 8 DIMMs per CPU) 16x DDR5 4800MHz R-DIMM slots
Capacity	RDIMM up to total 2TB

▼ Expansion

Onboard Expansion Slots	- 16x PCIe Gen4 x8 slots for NIC module - 4x PCIe Gen5 x8 for NIC module - 2x ExaMAX PCIe16 connector - 8x internal SlimSAS 8i connector (2x RS058A) for 3U/4U - 2x MiniSAS HD connector (2x 8 SATA Port) - 4x SATA Port
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▼ I/O

USB	External: 2x USB2.0 at Front (CPU0), 1x USB3.0 at Rear (CPU1) Internal: 1 USB2.0 Pin Header (CPU0), 1x USB3.0 Pin Header (CPU1, 1 for Rear USB)
Serial	1x RJ45 Console port (COM1) 2x internal pin header (COM2 & COM3)
Secure Boot	Support OT006B module

▼ Ethernet

GbE Ethernet	2x RJ45 1GbE ports on the front panel
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▼ Storage

SATA	Support 2x 2.5" SATA HDD or SSD
mSATA/mPCIe	1x socket (co-layout)
M.2	1x M.2 2280 socket (M key) (CPU0 supports PCIe3 x4, CPU1 supports PCIe3x4)

▼ Power Supply

Watt	1+1 CPRS 1200W/1300W/1600W AC/DC Redundant power supply
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▼ Mechanical and Environment

Form Factor	2U/4U Rackmount
LED	1x Power LED (Green) 1x HDD LED (Red) 2x Status LED (Green/Amber via programmable GPIO)
Dimension (W x D x H)	SCB-1946A : 440 mm(W) x 680 mm(D) x 88 mm(H) SCB-1946B/E: 440 mm(W) x 600 mm(D) x 88 mm(H) SCB-1946D: 440 mm(W) x 600 mm(D) x 176 mm(H)
Operating Temperature	Operating: 0 ~ 40°C (32 ~ 104°F)
Storage Temperature	-20 ~ 75°C (-4 ~ 167°F)
Humidity	10 ~ 85% relative humidity, non-operating, non-condensing
Weight	2U: TBD 4U: TBD
Certification	CE/FCC

▼ Packing List

- 1x SCB-1937 unit
- 2x power cord
- 1x CD (Manual, Quick Installation Guide, Utilities & Drivers)

Ordering Information

SCB-1946A	2U Rack-Mount, dual AMD EPYC 9004 (Genoa) series processor family, DDR5, 8 PCIe x8 slot, 1 PCIe x16 slot for rear add-on card, Console, USB2.0, US 3.0, 2 GbE, 2x 2.5" HDD, mSATA /CF, mini-PCIe, 2x M.2 2280
SCB-1946B	2U Rack-Mount, dual AMD EPYC 9004 (Genoa) series processor family, DDR5, 4 PCIe x8 slot, 2 PCIe x16 slot for 2nd layer Single Width L/P PCIe card, Console, USB2.0, USB 3.0, 2 GbE, LCM, mini-PCIe, 2x M.2 2280

SCB-1946D	4U Rack-Mount, dual AMD EPYC 9004 (Genoa) series processor family, DDR5, 16 PCIe x8 slot, USB2.0, USB 3.0, 2 GbE, LCM, mini-PCIe, 2x M.2 2280
SCB-1946E	2U Rack-Mount, dual AMD EPYC 9004 (Genoa) series processor family, DDR5, 4 PCIe x8 slot, 2 PCIe x16 slot for 2nd layer Dual Width FHFL GPU card, USB2.0, USB 3.0, 2 GbE, LCM, mini-PCIe, 2x M.2 2280

Optional

BP009A	CRPS Power Distribution Board for 2U system
BP013A	Backplane with HDD Active LED and HDD Fault LED support 2 2.5", SATA HDD Tray with hot-swappable
R594A	TPM 2.0 module via SPI pin header, Temp -20~85degree
R642A	I/O card with Console, LAN, USB, 4xLEDs
RS041A	Riser card with 2 SlimSAS x8 to 1 PCIe x16 Slot for rear standard PCIe add-on card
RS042A	Riser card with mSATA CONN to CF socket

RS054A	5 pin Fan card for FAN module 180D Male connector
RS055A	5 pin Fan card for FAN module 180D Female connector
RS058A	Riser Card with 4x PCI-E x8 slot to 4x SlimSAS 8i for 3U Layer LAN Module
RS065A	Riser card with high-speed CONN (ExaMax) to 2x SlimSAS 8i connectors
RS066A	Riser card with 2x SlimSAS 8i connectors to 1x PCI-E x16 slot
ZRS059A	2 PCIe x8 Golden Finger to 1 PCIe x16 Slot with re-driver IC DS80PCI810NJY

I/O

