

Processor Blade SBI-7428R-C3



Key Features

1. 168 CPUs per 42U Rack
2. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v4†/ v3 family; QPI up to 9.6GT/s
3. Intel® C612 Express chipset
4. Up to 512GB VLP ECC RDIMM; 16 DIMM
5. Intel® i350 Dual port Gigabit Ethernet
6. IPMI 2.0, KVM over IP, Virtual Media
7. FDR-10/QDR InfiniBand or 10GbE mezzanine HCA
8. 3x 2.5" Hot-swap HDD/SSD Bays
9. SAS3 via Broadcom 3108; HW RAID 0, 1, 5
10. Graphics: Aspeed AST2400 BMC

- [▶ Drivers & Utilities](#) ▶ [BIOS / IPMI](#) ▶ [Manuals](#) ▶ [Tested Memory](#) ▶ [Tested HDD](#)
[▶ OS Certification Matrix](#) ▶ [Download Driver CD](#)

Specifications

Product SKUs

- SBI-7428R-C3 ■ Processor Blade SBI-7428R-C3 (Black)

Motherboard

Super B10DRC

Processor/Cache

- CPU ■ Intel® Xeon® processor E5-2600 v4†/ v3 family
 ■ Dual Socket R3 (LGA 2011)

- Cores / Cache ■ Up to 22 Cores† / Up to 55MB† Cache

- System Bus ■ QPI up to 9.6 GT/s

Note † BIOS version 2.0 or above is required

System Memory

- Memory Capacity ■ 16x 288-pin DDR4 DIMM slots
 ■ Up to 512GB VLP ECC RDIMM

- Memory Type ■ 2400†/2133/1866/1600MHz ECC DDR4 SDRAM 72-bit

Dimensions

- Height ■ 11.32" (288 mm)

- Width ■ 1.19" (30.2 mm)

- Depth ■ 18.9" (480mm)

- Weight ■ 8.6 lbs (3.9 kg)

- Available Colors ■ Black

Front Panel

- Buttons ■ Power On/Off button
 ■ KVM button

- LEDs ■ Power LED
 ■ UID / KVM LED
 ■ Network Activity LED
 ■ Fault LED

- Connector ■ SUV (Serial/USB/Video) & KVM Connector

Drive Bays

- Hot-swap ■ 3x 2.5" Hot-swap SAS/SATA/SSD bays

Input / Output

- DOM ■ 2x SuperDOM (Disk on Module) ports

DIMM Sizes	<ul style="list-style-type: none"> VLP RDIMM: 32GB, 16GB, 8GB
Memory Voltage	<ul style="list-style-type: none"> 1.2 V
Error Detection	<ul style="list-style-type: none"> Corrects single-bit errors
	NOTE: 14-Blade can only use VLP (Very Low Profile) memory module.
On-Board Devices	
Chipset	<ul style="list-style-type: none"> Intel® C612 Express chipset
InfiniBand Support	<ul style="list-style-type: none"> 4x FDR-10/QDR (40Gbps) InfiniBand or 10GbE mezzanine HCA (Optional)
SAS	<ul style="list-style-type: none"> Broadcom 3108 SAS3 (12Gbps) controller HW RAID 0, 1, 5 support
IPMI	<ul style="list-style-type: none"> Support for Intelligent Platform Management Interface (IPMI) v.2.0 via Chassis Management Module (CMM)
Network Controllers	<ul style="list-style-type: none"> Intel® I350 Dual port Gigabit Ethernet Intel® I/OAT 3 support for fast, scaleable, and reliable networking VMDq support for better performance of virtualization
Graphics	<ul style="list-style-type: none"> Aspeed AST2400 BMC
System BIOS	
BIOS Type	<ul style="list-style-type: none"> 128Mb SPI Flash EEPROM with AMI® BIOS
BIOS Features	<ul style="list-style-type: none"> Plug and Play (PnP) PCI 2.2 ACPI up to 3.0 USB Keyboard support

TPM	<ul style="list-style-type: none"> 1x TPM 1.2 20-pin Header
KVM	<ul style="list-style-type: none"> 1x Front Connector for SMCI KVM Card
Operating Environment / Compliance	
Environmental Spec.	<ul style="list-style-type: none"> Operating Temperature: 10°to 35°C (50°to 95°F) Non-operating Temperature: -40°to 70°C (-40°to 158°F) Operating Relative Humidity: 8% to 90% (non-condensing) Non-operating Relative Humidity: 5 to 95% (non-condensing)
Electromagnetic Compatibility (EMC)	
United States / Canada	<ul style="list-style-type: none"> FCC- Emissions (US) Verification
Europe	<ul style="list-style-type: none"> EN55022 - Emissions EN55024 - Immunity EN61000-3-2 - Harmonics EN61000-3-3 - Voltage Flicker CE - EMC Directive 89/336/EEC
Safety Compliance	
United States / Canada	<ul style="list-style-type: none"> UL60950-1 - CSA/CUL 60950-1
Europe	<ul style="list-style-type: none"> EN60950-1, CE - Low Voltage Directive 73/23/EEE
Germany	<ul style="list-style-type: none"> TUV
Thermal Limitation	
Note	<ul style="list-style-type: none"> SuperBlade full enclosure with four 1620W power supplies will have thermal limitation of 30°C ambient temperature.

Parts List - (Items Included)

	Part Number	Qty	Description
Motherboard / Chassis	MBD-B10DRC -O-P	1	Super B10DRC Motherboard
	CSE-714M-230B	1	14-Black Front Blade With Three 2.5" HDD
Hard Drive Tray	MCP-220-00047-0B	3	Black 2.5" Hard Drive Tray
Front Panel Control	MCP-280-KVM1	1	Power & KVM buttons, LED, KVM connector
Air Shroud	MCP-310-00074-0N	1	Air shroud set for B10DRI / B10DRC on 14-Blade CSE-714M-230B, HF, RoHS/REACH
Add-on Module	AOM-B3108-H8-O-P	1	AOM with Broadcom 3108

Optional Parts List

	Part Number	Qty	Description
TPM security module (optional, not included)	AOM-TPM-9655H	-	TPM module (Horizontal) with Infineon 9655, RoHS/REACH,PBF
SuperDOM	-	-	Supermicro SATA DOM Solutions [Details]
Heatsink / Retention	SNK-P1033P	2	Heatsink for Intel CPU
Networking	AOC-IBH-X3QD	1	Dual Port, Low Latency InfiniBand Adapter Cards For SuperBlade
	AOC-IBH-X3QS	1	Single Port, Low Latency InfiniBand Adapter Cards For SuperBlade
	AOC-XEH-iN2	1	Dual Port 10G Ethernet AOC for Blade
	AOC-IBH-XDD	1	InfiniBand Dual-Port 4x DDR 20Gbps Mezzanine HCA (Mellanox ConnectX chip)
	AOC-IBH-XQD	1	InfiniBand Dual-Port 4x QDR 40Gbps Mezzanine HCA (Mellanox ConnectX-2 chip)
	AOC-IBH-XQS	1	InfiniBand Single port 4x QDR 40Gbps Mezzanine HCA (Mellanox ConnectX chip)
	AOC-IBH-XDS	1	InfiniBand Single port 4x DDR 20Gbps Mezzanine HCA

			(Mellanox ConnectX chip)
Software	SFT-OOB-LIC	1	OOB Management Package (per node license)
Software	SFT-DCMS-Single	1	DataCenter Management Package (per node license)