SuperServer 5086B-TRF

Available Color: Black

Integrated Boards

1x X8OBN - F
4x X8OBN - CPU
2x X8OBN - BR1

Drivers & Utilities BIOS Tested Memory / HDD

Key Features

1. Highest Density 5U 8Way Server; Super-High Computing Performance
2. 8x Intel® Xeon® 8-core 7500* series and 10-core E7-8800 family processors supported
3. 64x DIMM slots (16GB DDR3) support up to 2TB Reg. ECC SDRAM**
4. 4x PCI-E 2.0 x16 + 2x PCI-E 2.0 x8 (in x16 slot) or 10x PCI-E 2.0 x8 full-height full-length slots
5. Dual Gigabit Ethernet LAN ports
6. 16x 2.5" HDDs and 2x 5.25" devices; up to 24x 2.5" HDDs with optional HDD module***
7. 6x SATA2 ports onboard
8. Onboard BMC supports IPMI 2.0 + KVM with dedicated LAN
9. 6x 9cm Hot-swap cooling fans
10. 2800W hot-swap (2+2) redundant high-efficiency power supplies **Gold Level Certified**

Note: Image above may show a varied configuration or optional parts, Please refer to parts list for standard parts included.

Specifications

Product SKUs	
SYS-5086B-TRF	SuperServer 5086B-TRF (**Black**)
Motherboards	
X8OBN-F (1) + X8OBN-CPU (4) + X8OBN-BR1 (2)	
Processor/Cache	
CPU	Quad 1567-pin LGA Sockets Supports up to eight **Intel® Xeon® 64-bit** processor(s) of the same type below: **Intel® Xeon® processors 7500* series (8 -core, codename Nehalem -EX) and new generation Intel® Xeon® processors E7 -8800 family (10 -core, codename Westmere -Ex) supported**
QPI	up to 6.4 GT/s
System Memory	
Memory Capacity	64x 240-pin DIMM sockets Supports up to 1024 GB DDR3 ECC reg. memory
Memory Type	1333/1066/978/800MHz ECC Registered DDR3 SDRAM 72-bit, 240-pin gold-plated DIMMs****
DIMM Sizes	1GB, 2GB, 4GB, 8GB, 16GB
Memory Voltage	1.5 V, 1.35V
Error Detection	Corrects single-bit errors Detects double-bit errors (using ECC memory) Supports Intel® x4 and x8 Single Device Data Correction (SDDC)
On-Board Devices	
Chipset	2x Intel® 7500 (Boxboro-EX) chipset ICH10R
SATA	Intel ICH10R SATA 3.0Gbps Controller RAID 0, 1, 5, 10 support (Windows) RAID 0, 1, 10 support (Linux)
IPMI	Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support Winbond® WPCM450 BMC
Network Controllers	Intel® 82576 Dual-Port Gigabit Ethernet Controllers Supports 10BASE-T, 100BASE-TX, and 1000BASE-T, RJ45 output 1x Realtek RTL8201N PHY (dedicated IPMI)
Graphics	Matrox G200eW 16 MB DDR2
Super I/O	Winbond 83527HG chip
Input / Output	
LAN	3x RJ45 LAN ports (1 for IPMI)
USB	Total of 8 USB 2.0 ports (2x rear, 4 via 2x internal headers, 2x Type A)
SATA	6x SATA2 ports
Serial Port / Header	1 Fast UART 16550 serial port 1 Fast UART 16550 serial header
VGA	1 VGA port
System BIOS	
BIOS Type	32Mb SPI Flash EEPROM with AMI BIOS
BIOS Features	Plug and Play (PnP) PCI 2.2 ACPI up to 3.0 USB Keyboard support

Chassis	
Form Factor	5U Rackmountable
Model	**CSE-758A-R2800B**
Dimensions	
Height	8.6" (219mm)
Width	17.2" (437mm)
Depth	30" (762mm)
Weight	Gross Weight: 176 lbs
Available Colors	Black
Drive Bays	
Hot-swap	16x 2.5" HDDs
Peripheral Bay (s)	2x 5.25" drives
Expansion Slots	
PCI-Express	4x PCI-E 2.0 x16 + 2x PCI-E 2.0 x8 (in x16) or 10x PCI-E 2.0 x8 full-height, full-length slots
System Cooling	
Fans	4x Hot-Swap Cooling Fans 2x Hot-Swap Rear Exhaust Fan
Shrouds	4x CPU card air shrouds for SC758
Power Supply	
2800W (2+2) Redundant 1400W high-efficiency power supply with PMBus	
AC Input	1200W: 100 - 140V, 50 - 60Hz, 10.5 - 14.7 Amp 1400W: 180 - 240V, 50 - 60Hz, 7.2 - 9.5 Amp
DC Output +5V standby	6 Amp
DC Output +12V	100 Amp @ 100-140V 117 Amp @ 180-240V
Certification	**80 PLUS Gold Certified** [Test Report]
PC Health Monitoring	
CPU	Monitors for CPU Cores, +1.2V, 1.5V, +3.3V, +12V, (+3V, 1.0V, 1.2V, 1.8V, 1.1V) Standby, VBAT, Memory, Chipset Voltages. 4-Phase-switching voltage regulator with auto-sense from 0.6V-1.35V
FAN	10x 4-pin fan headers with tachometer status monitoring Low noise fan speed control mode
Temperature	Monitoring for CPU and system environment Thermal Control for 10x fan connectors
Other Features	Chassis intrusion detection
Operating Environment / Compliance	
Environmental Spec.	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)

Parts List

Parts List - (Items Included)

	Part Number	Qty	Descriptin
Motherboard / Chassis	MBD-X8OBN-F	1	X8OBN base board
	MBD-X8OBN-CPU	4	X8OBN processor board
	MBD-X8OBN-BR1	2	X8OBN bridge board
	CSE-758A-R2800BP	1	SC758 incomplete 5U Chassis
Backplane	BPN-SAS-I28A	2	BPN-SAS-I28A
Cable 1	CBL-0116L	2	IPASS TO 4 SATA 50CM CROSS OVER PBF
Cable 2	CBL-0449L	2	HDD power extension for X8OBN, special 8pin to 4 HDD
CD	CDR-X8-O	1	Driver CD for X8-O series motherboard
Heatsink / Retention	SNK-P0044P+	8	Special CPU heatsink for Nehalem-EX
Power Supply	PWS-1K41F-1R	4	1400W 1U GOLD LEVEL PWS W/ PM BUS & WX106MM
I/O Shield	MCP-260-00027-0N	1	Std I/O shield for X8, H8, X7SB3 server MB (3rd LAN + 4x LAN)
Mounting Rails	MCP-290-00057-0N	1 set	Rail set, quick/quick, default for 4U 17.2"W

Optional Parts List

	Part Number	Qty	Description
Mounting Rail	MCP-290-00058-0N	-	Short rail set, quick/quick, optional for 2~4U 17.2"W
Add on cards	AOC-SAS2LP-H8iR	-	2108 based SAS/SATA RAID - 8 internal ports/Low profile -PCI-E
	AOC-SAS2LP-H4iR	-	2108 based SAS/SATA RAID - 4 internal ports & 4 external ports
	AOC-STGN-i2S	-	STD Dual-port 10G Ethernet with SFP+ W/ CDR
	AOC-E10GSFPSR	-	OPTI MOD 10G SR/1000BASE-SX FOR E10G42BTDA
	AOC-MHQH29B-XTR	-	MHQH29B-XTR,IB 2P QDR,PCIe2.0,QSFP,PBF
	AOC-MHQH29C-XTR	-	MHQH29C-XTR,IB,2p,QDR,PCIe2.0,QSFP,PBF
HDD Module	CSE-M28SAB-OEM	-	SAS Mobile Rack CSE-M28SAB w/o fan module
Cable	CBL-0281L	-	IPASS TO IPASS 75CM PBF
Cable	CBL-0333L	-	6+2pin GPU power extension from MB GPU 8pin, 40cm

* Supported 7500 series processors include X7560, X7550, E7540, L7555, L7545, X7542 only
** Please check Tested Memory List for compatibility; 32GB memory requires Millbrook II
*** Additional RAID/HBA card and cables may be required (for detail, please consult with Supermicro sales representative)
**** Run at speed 1066MHz

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