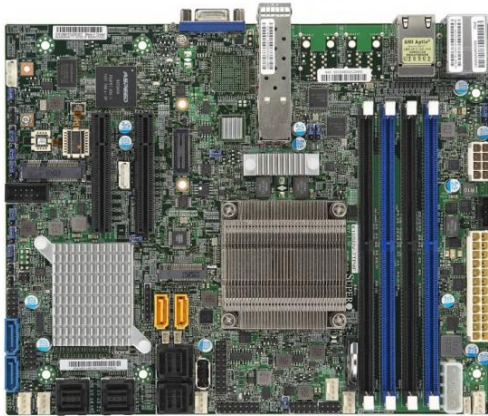




Pentium D SoC Dual Core

Broadwell-DE Dual 10GbE

Key Features

1. Intel® Pentium® processor D1508, Single socket FCBGA 1667; 2-Core, 4 Threads, 25W
2. Up to 128GB ECC RDIMM DDR4 1866MHz or 64GB ECC/non-ECC UDIMM in 4 sockets
3. 2 PCI-E 3.0 x8, Mini PCI-E (mSATA support), M.2 PCI-E 3.0 x4 (SATA support), M Key 2242/2280/22110
4. 2 10G SFP+ and 2 GbE LAN
5. 4 SATA3 (6Gbps) ports via SoC 16 SATA3/SAS2 via Broadcom® 2116
6. 2 USB 3.0 ports (rear), 5 USB 2.0 ports (4 via header(s), 1 Type A)
7. 2 SuperDOM, 1 COM, TPM 2.0 header, GPIO and SMBus header(s)
8. 12V DC Input and ATX Power Source

Links & Resources

[Tested Memory List](#)

[Tested HDD / SSD List](#)

[Tested M.2 List](#)

[Motherboard Manual](#)

[Quick Reference Guide](#)

[Update Your BIOS](#)

[BMC/IPMI Firmware](#)

[Download the Latest Drivers and Utilities](#)

[Download Drivers CD](#)

[OS Compatibility](#)

[Optimization](#)

Specifications

Product SKUs

MBD-X10SDV-2C-7TP4F	X10SDV-2C-7TP4F
----------------------------	---

Physical Stats

Form Factor	Flex ATX
Dimensions	9.0" x 7.25" (22.86cm x 18.42cm)

Processor/Cache

CPU	- Intel® Pentium® Processor D1508. - Socket FCBGA1667 supported, CPU TDP support 25W
Cores / Cache	2 cores, 4 threads / 3MB cache

System Memory

Memory Capacity	- Up to 128GB Registered ECC RDIMM, DDR4-1866MHz - Up to 64GB Unbuffered ECC/non-ECC UDIMM, DDR4-1866MHz, in 4 DIMM slots
Memory Type	1866/1600MHz ECC DDR4 ECC RDIMM and ECC/Non-ECC UDIMM
DIMM Sizes	4GB, 8GB, 16GB, 32GB
Memory Voltage	1.2V
Error Detection	- Corrects single-bit errors - Detects double-bit errors (using ECC memory)

On-Board Devices

Chipset	System on Chip
SATA	SoC controller for 4 SATA3 (6 Gbps) ports; RAID 0,1,5,10
SAS	Broadcom 2116 SW controller for 16 SATA3 (6Gbps) ports; SAS2 and SATA3
IPMI	- Support for Intelligent Platform Management Interface v.2.0 - IPMI 2.0 with virtual media over LAN and KVM-over-LAN support
Network Controllers	- Dual LAN with 10G SFP+ from D-1500 SoC - Dual LAN with 1GbE with Intel® I210
Graphics	Aspeed AST2400 BMC

Input / Output

SATA	4 SATA3 (6Gbps) port
LAN	2 10G SFP+ LAN ports 2 1GbE LAN ports 1 RJ45 Dedicated IPMI LAN port
USB	5 USB 2.0 ports (4 headers, 1 Type A) 2 USB 3.0 ports (2 rear)
Video Output	1 VGA port
Serial Port / Header	1 COM Port (1 header)
TPM	TPM Header

Expansion Slots

PCI-E	2 PCI-E 3.0 x8 - Mini-PCI-E with mSATA support
M.2	- M.2 Interface: 1 SATA/PCI-E 3.0 x4 - Form Factor: 2242, 2280, 22110 - Key: M-Key

System BIOS

BIOS Type	128Mb SPI Flash with AMI BIOS
BIOS Features	- PCI 3.0 - ACPI 5.0 - USB Keyboard support - Hardware BIOS Virus protection - SMBIOS 2.8 - UEFI 2.4

Management

Software	Intel® Node Manager, IPMI2.0, KVM with dedicated LAN, NMI, SUM, SuperDoctor® 5, Watchdog
Power Configurations	- ACPI Power Management - ATX Power connector +12V DC Power Input - Control of power-on for recovery from AC power loss - CPU thermal trip support for processor protection - M.2 NGFF connector, Node Manager Support, SDDC, System level control, UID, WOL

PC Health Monitoring

Voltage	+1.8V, +12V, +3.3V, +5V, Chassis intrusion header, Monitors for CPU Cores, System level control, VBAT
FAN	6x 4-pin fan headers (up to 6 fans), Dual Cooling Zone, Low noise fan speed control, Overheat LED indication, PWM fan speed control, Status monitoring for on/off control, Status monitoring for speed control
Temperature	Monitoring for CPU and chassis environment, CPU thermal trip support, Thermal Monitor 2 (TM2) support, PECI
LED	CPU / System Overheat LED
Other Features	12V DC or ATX Power Source, Chassis intrusion detection, Chassis intrusion header, RoHS

Operating Environment

Operating Temperature Range	0°C ~ 60°C (32°F ~ 140°F)
Non-Operating Temperature Range	-40°C - 85°C (-40°F - 185°F)
Operating Relative Humidity Range	10% ~ 85% (non-condensing)
Non-Operating Relative Humidity Range	10% ~ 95% (non-condensing)

Parts List

Parts List (Bulk Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X10SDV-2C-7TP4F	1	X10SDV-2C-7TP4F Motherboard
I/O Cables	CBL-0044L	2	57.5CM SATA FLAT S-S PBF
I/O Shield	MCP-260-00098-0N	1	STD I/O SHIELD

Optional Parts List			
Name	Part Number	Qty	Description
1U I/O Shield	MCP-260-00100-0B	1	1U I/O Shield for X10SDV-2C-7TP4F in SC510/SC505/SC504 chassis
1U I/O Shield	MCP-260-00099-0N	1	1U I/O Shield for X10SDV-2C-7TP4F in SC813/SC514 chassis
SAS/SATA Cable	CBL-SAST-0616	1	MINI SAS HD-4 SATA, INT, 50CM, 50CM SB, 30AWG

Chassis (Optimized for X10SDV-2C-7TP4F)

Embedded Compact	1U	2U	3U	Mid/Mini-Tower	4U/Tower
	SC504-203B SC505-203B SC514-505 SC515-R407 SC813MTQ-350CB				

= Most optimized Chassis for SuperServer Configuration
Blue color = Compatible
Green color = Global SKU & Compatible
Red dot & green color = Optimized + Global SKU

Server (Optimized for X10SDV-2C-7TP4F)

Server Name
<u>SSG-5018D2-AR12L</u>