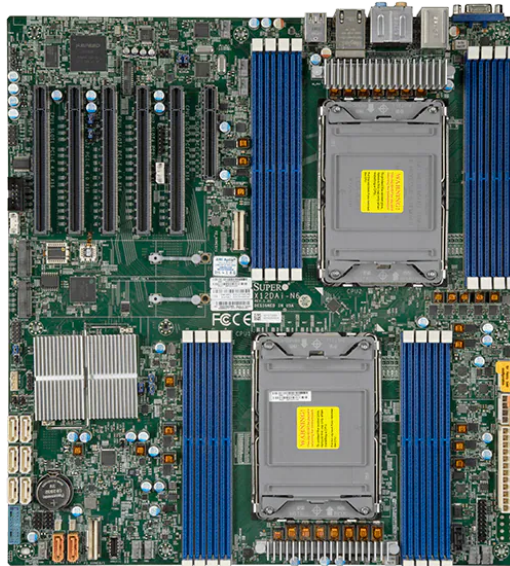


# X12DAI-N6

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## Workstation

### Key Features

3rd Gen Intel® Xeon® Scalable processors

Dual Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 270W TDP, 3 UPI up to 11.2 GT/s

Intel® C621A

Up to 4TB 3DS ECC RDIMM, DDR4-3200MHz; Up to 4TB 3DS ECC LRDIMM, DDR4-3200MHz

Up to 4TB Intel® Optane™ Persistent Memory, DDR4-3200MHz, in 16 DIMM slots;

5 PCIe 4.0 x16,

1 PCIe 4.0 x8,

4 PCIe 4.0 NVMe x4 Internal Port(s)

**M.2 Interface:** 2 PCIe 4.0 x4, RAID 0 & 1

**M.2 Form Factor:** 2280/22110

**M.2 Key:** M-Key

Intel® C621A controller for 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10

Dual LAN with Intel® i210 Gigabit Ethernet Controller

1 VGA D-Sub Connector port

### Optimized Servers

[SYS-740A-T](#)

[SYS-730A-I](#)

### Specifications

**Product SKUs****MBD-X12DAI-N6****Physical Stats****Form Factor**

E-ATX

**Dimension**

12" x 13" (30.48cm x 33.02cm)

**Processor****CPU**

3rd Gen Intel® Xeon® Scalable processors

Dual Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 270W TDP, 3 UPI up to 11.2 GT/s

**System Memory****Memory Capacity**

16 DIMM slots

Up to 4TB Intel® Optane™ Persistent Memory 200 Series, DDR4-3200MHz

Up to 4TB 3DS ECC LRDIMM, DDR4-3200MHz; Up to 4TB 3DS ECC RDIMM, DDR4-3200MHz

**Memory Type**

3200/2933/2666 MT/s ECC DDR4 LRDIMM (3DS), RDIMM (3DS)

**DIMM Sizes**

8GB, 16GB, 32GB, 64GB, 128GB, 256GB

**Memory Voltage**

1.2V

**Error Detection**

Corrects single-bit errors

Detects double-bit errors (using ECC memory)

**On-Board Devices****Chipset**

Intel® C621A

**SATA**

Intel® C621A controller for 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10

**IPMI**

ASPEED AST2600 BMC

**Audio**

7.1 HD Audio

**Graphics**

1 ASPEED AST2600 BMC port(s)

**Network Controllers**

Dual LAN with Intel® i210 Gigabit Ethernet Controller

**Input / Output****USB**

6 USB 3.2 Gen1 port(s) (2 via header; 4 rear)

2 USB 3.2 Gen2 port(s) (1 via header; 1 rear type A)

**Video Output**

1 VGA D-Sub Connector port(s)

**Serial Port**

1 COM Port(s) (1 header)

**DOM**

2 SuperDOM (Disk on Module) power connector

**TPM**

1 TPM Header

**Expansion Slots****PCIe**

1 PCIe 4.0 x8,

5 PCIe 4.0 x16

**M.2**

M.2 Interface: 2 PCIe 4.0 x4, RAID 0 &amp; 1

Form Factor: 2280/22110

Key: M-Key

**System BIOS****BIOS Type**

AMI UEFI

**Management****Software**[Redfish API](#), [Supermicro Server Manager \(SSM\)](#),[Supermicro Power Manager \(SPM\)](#), [Supermicro Update](#)[Manager \(SUM\)](#), [SuperDoctor® 5](#), [Super Diagnostics Offline](#)[, KVM with dedicated LAN](#), [IPMI 2.0](#)**Security****Hardware**

Trusted Platform Module (TPM) 2.0

**PC Health Monitoring****Voltage**

VBAT, System temperature, PCH temperature, Monitors CPU voltages, Memory temperature, CPU temperature, CPU, +5V standby, +5V, +3.3V, +12V, VRM temperature, Memory Voltages, 8 -fan status

**LED**

Power LED

BMC/IPMI Heartbeat LED

CPU / System Overheat LED

**Temperature**

Monitoring for CPU and chassis environment

CPU thermal trip support

**FAN**

8x 4-pin fan headers (up to 8 fans)

PWM fan speed control

Status monitoring for speed control

8x fans with tachometer monitoring

**Other Features**

WOL, UID, RoHS, Node Manager Support, CPU thermal trip support for processor protection, Chassis intrusion header, Chassis intrusion detection, ATX Power connector, ACPI power management, RoT, NCSI header

**Operating Environment****Operating Temperature Range**

10°C - 35°C (50°F - 95°F)

**Non-Operating Temperature Range**

-40°C - 70°C (-40°F - 158°F)

**Operating Relative Humidity Range**

8% - 90% (non-condensing)

**Non Operating Relative Humidity Range**

5% - 95% (non-condensing)

## Parts List

### Standard Parts (Bulk Package)

**CPU carrier**

Part Number SKT-1205L-P4IC-FXC

Qty 2

Description CPU carrier for 3rd Gen  
Intel Xeon Scalable  
Processors

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**I/O Cables**

Part Number CBL-0044L • [eStore](#)  
Qty 2  
Description 57.5 cm SATA FLAT S-S PBF

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**I/O Shield**

Part Number MCP-260-00115-0N •  
[eStore](#)  
Qty 1  
Description STD I/O SHIELD

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**Standard Parts (Retail Package)****CPU carrier**

Part Number SKT-1205L-P4IC-FXC  
Qty 2  
Description CPU carrier for 3rd Gen  
Intel Xeon Scalable  
Processors

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**I/O Cables**

Part Number CBL-0044L • [eStore](#)  
Qty 2  
Description 57.5 cm SATA FLAT S-S PBF

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**I/O Shield**

Part Number MCP-260-00115-0N •  
[eStore](#)  
Qty 1  
Description STD I/O SHIELD

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**Quick Reference Guide**

Part Number MNL-2239-QRG  
Qty 1  
Description X12DAI-N6 Quick  
Reference Guide

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**Optional Parts****TPM security module (optional, not included)**

|             |   |   |
|-------------|---|---|
| Part Number | AOM-TPM-9670V   | AOM-TPM-9670H   |
| Qty         | 1   | 1   |
| Description | SPI capable TPM 2.0 with<br>Infineon 9670 controller<br>with vertical form factor | SPI capable TPM 2.0 with<br>Infineon 9670 controller<br>with horizontal form factor |

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**U.2 NVMe Cable**

Part Number CBL-SAST-0953-1  
Qty 2  
Description Slimline x8 to PCIe 2x SFF-  
8639 & Power

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