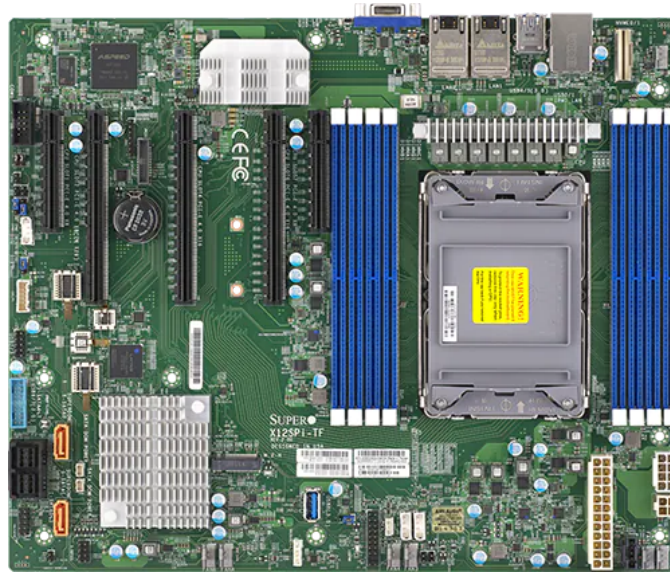


# X12SPI-TF

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**High Performance**

## Key Features

3rd Gen Intel® Xeon® Scalable processors, Single Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 270W TDP

Intel® C621A

Up to 2TB RDIMM, DDR4-3200MHz; Up to 2TB LRDIMM, DDR4-3200MHz

Up to 2TB Intel® Optane™ Persistent Memory 200 Series, in 8 DIMM slots

2 PCIe 4.0 x16,

2 PCIe 4.0 x8,

1 PCIe 4.0 x8 (in x16 slot),

1 PCIe 4.0 NVMe x8 Internal Port(s)

**M.2 Interface:** 1 SATA/PCIe 3.0 x4

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

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

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

Dual LAN with 10GBase-T with Intel® X550

## Optimized Servers

[SSG-520P-ACTR12H](#)

[SSG-520P-ACTR12L](#)

[SSG-540P-E1CTR36H](#)

[SSG-540P-E1CTR36L](#)

[SSG-540P-E1CTR45H](#)

[SSG-540P-E1CTR45L](#)

[SSG-540P-E1CTR60H](#)

[SSG-540P-E1CTR60L](#)

## Specifications

## Product SKUs

### MBD-X12SPI-TF

## Physical Stats

### Form Factor

ATX

### Dimension

12.1" x 10" (30.73cm x 25.4cm)

## Processor

### CPU

3rd Gen Intel® Xeon® Scalable processors

Single Socket LGA-4189 (Socket P+) supported, CPU TDP supports Up to 270W TDP

### Core

Up to 40 cores

## System Memory

### Memory Capacity

8 DIMM slots

Up to 2TB Intel® Optane™ Persistent Memory 200 Series

Up to 2TB ECC LRDIMM, DDR4-3200MHz; Up to 2TB ECC RDIMM, DDR4-3200MHz

### Memory Type

ECC, DDR4 LRDIMM, RDIMM

### DIMM Sizes

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

### Memory Voltage

1.2V

### Error Detection

Corrects single-bit errors

## On-Board Devices

### Chipset

Intel® C621A

### SATA

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

### IPMI

ASPEED AST2600 BMC

### Graphics

1 ASPEED AST2600 BMC port(s)

### Network Controllers

Dual LAN with 10GBase-T with Intel® X550

## Input / Output

### LAN

2 RJ45 10 Gigabit Ethernet LAN ports

### USB

4 USB 2.0 port(s) (2 rear; 2 via header)

5 USB 3.2 Gen1 port(s) (2 via header; 2 rear; 1 type A)

### Video Output

1 VGA D-Sub Connector port(s)

### Serial Port

1 COM Port(s) (1 header)

### DOM

2 SATA DOM (Disk on Module) power connector support

### TPM

1 TPM Header

## Expansion Slots

### PCIe

2 PCIe 4.0 x16,

1 PCIe 4.0 x8 (in x16 slot),

2 PCIe 4.0 x8

### M.2

M.2 Interface: 1 SATA/PCIe 3.0 x4

Form Factor: 2280/22110

Key: M-Key

## System BIOS

### BIOS Type

AMI UEFI

### BIOS Features

ACPI 6.2

SMBIOS 3.0 or later

UEFI 2.7

## 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](#)

### System Management Software

IPMI (Intelligent Platform Management Interface) v1.5 / 2.0 with KVM support

### Power Configurations

Power-on mode for AC power recovery, ACPI Power Management, CPU thermal trip support for processor protection

## Security

### Hardware

Trusted Platform Module (TPM) 2.0

## PC Health Monitoring

### Voltage

VBAT, System temperature, Monitors CPU voltages, HT, Chassis intrusion header, 3.3V standby, +5V standby, +5V, +3.3V, +12V, +1.8V, 7-fan status

### LED

UID/Remote UID

BMC/IPMI Heartbeat LED

Suspend static indicator LED

CPU / System Overheat LED

### Temperature

CPU thermal trip support

PECI

### FAN

7x 4-pin fan headers (up to 7 fans)

System level control

PWM fan speed control

Fan speed control

Overheat LED indication

### Other Features

UID, RoHS, Dual Cooling Zones, Chassis intrusion detection, ATX Power connector, ACPI power management, RoT, NCSI header

## Operating Environment

### Operating Temperature Range

0°C - 50°C (32°F - 122°F)

### Non-Operating Temperature Range

-20°C - 60°C (-4°F - 140°F)

### Operating Relative Humidity Range

10% - 85% (non-condensing)

### Non Operating Relative Humidity Range

10% - 95% (non-condensing)

## Parts List

### Standard Parts (Bulk Package)

#### CPU carrier

Part Number	SKT-1205L-P4IC-FXC
Qty	1
Description	CPU carrier for 3rd Gen Intel Xeon Scalable Processors

#### I/O Cables

Part Number	CBL-0044L • <a href="#">eStore</a>
Qty	2
Description	57.5 cm SATA FLAT S-S PBF

#### I/O Shield

Part Number	MCP-260-00042-1N
Qty	1
Description	-

### Standard Parts (Retail Package)

#### CPU carrier

Part Number	SKT-1205L-P4IC-FXC
Qty	1
Description	CPU carrier for 3rd Gen Intel Xeon Scalable Processors

#### I/O Cables

Part Number	CBL-0044L • <a href="#">eStore</a>
Qty	2
Description	57.5 cm SATA FLAT S-S PBF

#### I/O Shield

Part Number	MCP-260-00042-1N
Qty	1
Description	-

#### QRG

Part Number	MNL-2225-QRG
Qty	1
Description	-

### Optional Parts

#### TPM security module

Part Number	AOM-TPM-9671V	AOM-TPM-9670V
Qty	1	1
Description	SPI capable TPM 1.2 with Infineon 9670 controller with vertical form factor	SPI capable TPM 2.0 with Infineon 9670 controller with vertical form factor

