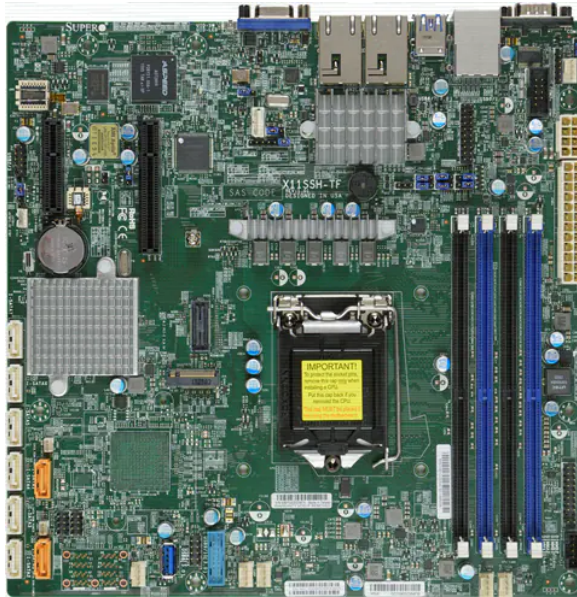# X11SSH-TF

Key Features

1. Single socket H4 (LGA 1151) supports Intel® Xeon® processor E3-1200 v6/v5, Intel® 7th/6th Gen. Core™ i3 series, Intel® Celeron® and Intel® Pentium®

2. Intel® C236 chipset

3. Up to 64GB Unbuffered ECC UDIMM DDR4 2400MHz; 4 DIMM slots

4. Expansion slots:
   1 PCI-E 3.0 x8, 1 PCI-E 3.0 x2 (in x4)

5. M.2 NGFF connector
   M.2 Interface: SATA and PCI-E 3.0 x4
   Form Factor: 2260
   Key: M-Key

6. 8 SATA3 (6Gbps) via C236; RAID 0, 1, 5, 10

7. Dual 10GBase-T LAN with Intel® X550

8. I/O: 1 VGA, 2 COM, TPM header

9. 2 SuperDOM with built-in power

10. 5 USB 3.0 (2 rear, 2 via header(s), 1 Type A), 6 USB 2.0 (2 rear, 4 via header(s))

Specifications

Product SKUs

MBD-X11SSH-TF	X11SSH-TF

Physical Stats

Form Factor	Micro-ATX
Dimension	9.6" x 9.6" (24.38cm x 24.38cm)

Processor

CPU	Intel® Celeron®, Intel® Pentium®, Intel® 7th/6th Generation Core i3 series, Intel® Xeon® processor E3-1200 v6/v5 Single Socket LGA-1151 (Socket H4) supported, CPU TDP supports Up to 80W TDP
Note	BIOS version 2.0 or above is required to support 7th Generation Intel® Core™ i3 Processors and Intel® Xeon® Processor E3-1200 v6 series

System Memory

Memory Capacity	4 DIMM slots 64GB ECC UDIMM, DDR4-2400MHz
Memory Type	2400/2133/1866/1600MHz SDRAM 72-bit, 288-pin gold-plated DIMMs
DIMM Sizes	4GB, 8GB, 16GB
Memory Voltage	1.2V
Error Detection	Corrects single-bit errors

On-Board Devices

Chipset	Intel® C236
SATA	Intel® C236 controller for 8 SATA3 (6 Gbps) ports; RAID 0,1,5,10
IPMI	ASPEED AST2400 BMC
Graphics	ASPEED AST2400 BMC
Network Controllers	Dual LAN with Intel® X550 10GBase-T Ethernet Controller

Input / Output

USB	3 USB 3 port(s) (1 Type A; 2 via header) 6 USB 2.0 port(s) (4 via header; 2 rear) 2 USB 3.0 port(s) (2 rear)
Video Output	1 VGA port(s)
Serial Port	2 COM Port(s) (1 header; 1 rear)
TPM	1 TPM Header

Expansion Slots

PCI-E	1 PCI-E 3.0 x8, 1 PCI-E 3.0 x2 (in x4 slot)
M.2	M.2 Interface: SATA; PCI-E 3.0 x4 Form Factor: 2260 Key: M-Key

System BIOS

BIOS Type	128MB SPI Flash EEPROM with AMI BIOS
BIOS Features	APM 1.2 DMI 2.3 PCI 2.3 Plug and Play (PnP) ACPI 1.0 / 2.0 / 3.0 / 4.0 USB Keyboard support Hardware BIOS Virus protection UEFI 2.3.1 SMBIOS 2.7.1

Management

Software	SuperDoctor® 5, NMI, SUM, SPM, Intel® Node Manager, SSM, IPMI2.0, Watchdog
Power Configurations	Power-on mode for AC power recovery, ACPI Power Management

PC Health Monitoring

Voltage	VBAT, System level control, Supports system management utility, Monitors CPU voltages, Chassis intrusion header, +5V standby, +5V, +3.3V, +12V
LED	UID/Remote UID CPU / System Overheat LED
Temperature	Monitoring for CPU and chassis environment CPU thermal trip support Thermal Monitor 2 (TM2) support PECI
FAN	6x 4-pin fan headers (up to 6 fans) Thermal control tachometer fan connectors Fan speed control Overheat LED indication
Other Features	WOL Node Manager Support CPU thermal trip support for processor protection Control of power-on for recovery from AC power loss

Operating Environment

Operating Temperature Range	0°C - 50°C (32°F - 122°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

Parts List (Bulk Package)

Name	Part Number	Qty	Description
Motherboard	MBD-X11SSH-TF	1	X11SSH-TF Motherboard
I/O Cables	CBL-0044L • *eStore*	2	57.5CM SATA FLAT S-S PBF
I/O Shield	MCP-260-00042-0N • *eStore*	1	STD I/O Shield for X11SSH-TF with EMI Gasket

Parts List (Retail Package)

Name	Part Number	Qty	Description
Motherboard	MBD-X11SSH-TF	1	X11SSH-TF Motherboard
I/O Cables	CBL-0044L • *eStore*	6	57.5CM SATA FLAT S-S PBF
I/O Shield	MCP-260-00042-0N • *eStore*	1	STD I/O Shield for X11SSH-TF with EMI Gasket
QRG	MNL-1783-QRG	1	Motherboard Quick Reference Guide

Chassis (Optimized for X11SSH-TF)

Embedded Compact	1U	2U	3U	Mid/Mini-Tower	4U/Tower
	SC813MTQ-350CB 🔴 SC113MFAC2-R606CB 🔴 SC813MFTQ-R400CB 🔴 SC813MFTQC-350CB 🔴 SC813MFTQC-505CB SC512F-350B 🔴 SC113MFAC2-341CB	🔴 SC213LT-600LPB 🔴 SC823TQ-653LPB SC825TQ-R720LPB Heatsink:SNK-P0046A4	🔴 SC833T-653B Heatsink:SNK-P0046A4	SC731i-300B SC731i-403B SC732D3-1200B SC732I-500B SC731D-300B SC733TQ-668B Heatsink:SNK-P0046A4	SC842i-500B SC743AC-1200B-SQ SC745BAC-R1K28B2 Heatsink:SNK-P0046A4

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

Server (Optimized for X11SSH-TF)

Server Name
SYS-5019S-MT