SUPERMICRO®
X12STL-F
Quick Reference Guide 1.00

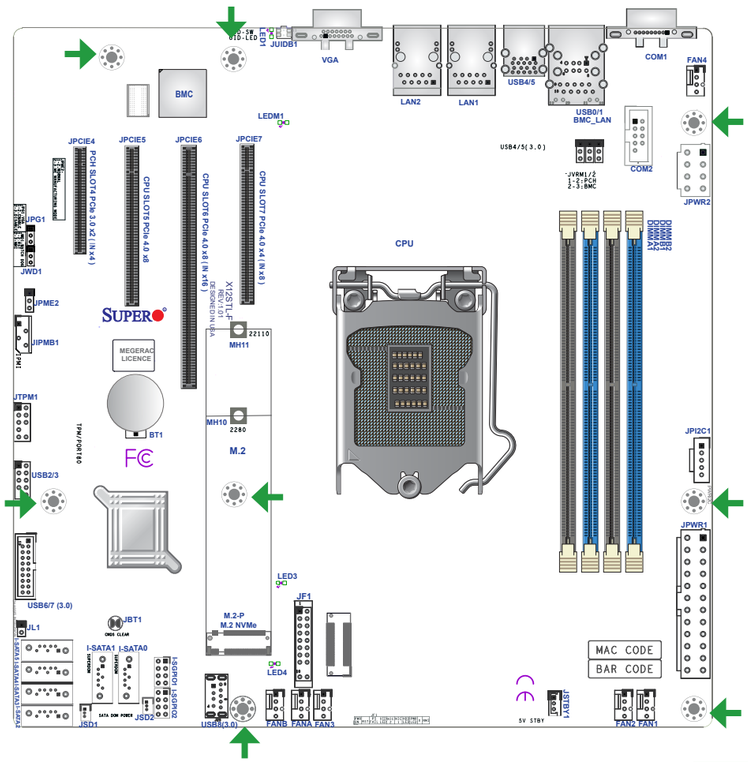
Contact Information
- Website: www.supermicro.com
- General Information: marketing@supermicro.com
- Technical Support: support@supermicro.com
- Phone: +1 (408) 503-8000, Fax: +1 (408) 503-8008

For your system to work properly, please download appropriate drivers/images/user's manual from the links below:
- Manuals: http://www.supermicro.com/support/manuals
- Drivers & Utilities: https://www.supermicro.com/wdl/driver/
- Safety: http://www.supermicro.com/about/policies/safety_information.cfm

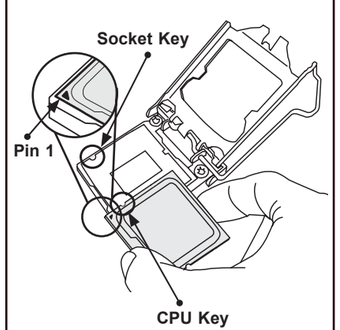
Package Contents
- One Supermicro Motherboard
- One Quick Reference Guide

WARNING: This product can expose you to chemicals including lead, known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

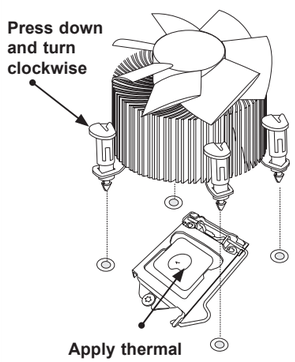
Motherboard Layout and Features



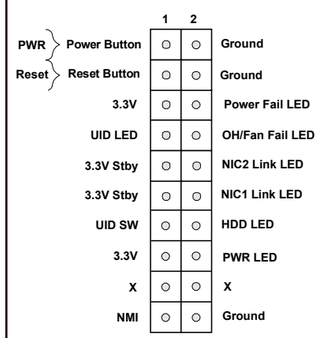
CPU Installation



Heatsink Installation



Front Control Panel



Note: Graphics shown in this quick reference guide are for illustration only. Your components may or may not look exactly the same as drawings shown in this guide.

Connectors and LED Indicators

Jumpers

Jumper	Description	Default
JBT1	CMOS Clear	Open (Normal)
JPG1	VGA Enable/Disable	Pins 1-2 (Enabled)
JPME2	Manufacturing Mode	Pins 1-2 (Normal)
JVRM1/JVRM2	VRM SMB Clock (to BMC or PCH)	Pins 1-2 PCH (Normal) Pins 2-3 BMC (Normal)
JWD1	Watchdog Timer	Pins 1-2 (Reset)

Connectors

Connector	Description
BT1	Onboard Battery
COM1/COM2	COM1 (Port), COM2 (Header)
FAN1 ~ FAN4, FANA/FANB	System/CPU Fan Headers
I-SATA0~I-SATA5	Intel Serial ATA (SATA 3.0) Ports (6Gb/s)
I-SGPIO1, I-SGPIO2	Serial General Purpose I/O Headers
BMC_LAN	Dedicated BMC LAN Port
JF1	Front Control Panel Header
JL1	Chassis Intrusion Header
JPCIE4	PCH SLOT4 PCIe 3.0 x2 (IN x4)
JPCIE5	CPU SLOT5 PCIe 4.0 x8
JPCIE6	CPU SLOT6 PCIe 4.0 x8 (IN x16)
JPCIE7	CPU SLOT7 PCIe 4.0 x4 (IN x8)
JPWR1	24-pin ATX Main Power Connector (Required)
JPWR2	+12V 8-pin CPU Power Connector (Required)
JSD1/JSD2	SATA DOM Power Connector
JSTBY1	Standby Power Header (5V)
JIPMB1	4-pin external BMC I²C header (for an IPMI card)
JTPM1	Trusted Platform Module/Port 80 Connector
JUIDB1	UID Switch
LAN1/LAN2	Gigabit (RJ45) Ports
M.2-P, M.2 NVME	M.2 PCIe 3.0 x4 Slot (Supports 22110/2280 FF)
JPI²C1	Power SMB (System Management Bus) I²C Header
USB0/1	Back Panel USB 2.0 Ports
USB2/3	Front Accessible USB 2.0 Ports
USB4/5	Back Panel USB 3.2 Gen1 Connector
USB6/7	Front Accessible USB 3.2 Gen1 Ports via Headers
USB8	Front Accessible USB 3.2 Gen1 Port (Type-A)
VGA	VGA Port

LED Indicators

LED	Description	Status
LED1	Unit Identifier LED	Solid Blue: Unit Identified
LED3	M.2 Activity LED	Blinking Green: Device Working
LED4	Power Status LED	Solid Green: Power On
LEDM1	BMC Heartbeat LED	Blinking Green: BMC Normal
LAN1 & LAN2 LEDs	Ethernet Ports LEDs	Green (right): Indicates Activity Link LED (left): Indicates Speed
BMC LAN LEDs	BMC LAN Ports LEDs	Green: Indicates Speed Amber: Indicates Activity

Note: Refer to Chapter 1 of the User Manual for detailed information on jumpers, connectors, and LED indicators.

CPU Support

The X12STL-F supports the Intel® Xeon E-2300 Family and 10th Generation Pentium (Socket H5 - LGA 1200) series processor with up to eight cores and a thermal design power (TDP) of up to 95W.

Memory Support and Installation

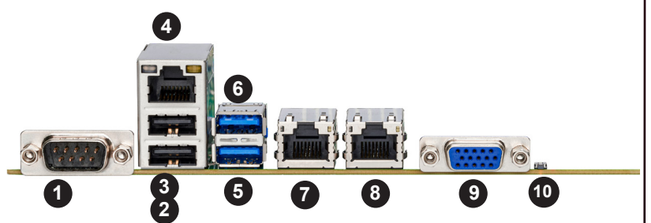
The X12STL-F supports 128GB DDR4 ECC UDIMM memory with speeds of up to 3200MHz in four slots. See below for additional memory information.

Insert the desired number of DIMMs into the memory slots in the sequence of DIMMB2, DIMMA2, DIMMB1, and DIMMA1. Populating these DIMM slots with a pair of memory modules of the same type and size will result in interleaved memory, which will improve memory performance.

- Always use DDR4 memory of the same type, size and speed.
- The motherboard will support odd-numbered modules (one or three modules installed). However, to achieve the best memory performance, a balanced memory population is recommended.
- Memory capacity and frequency is CPU dependent.

Max	4 Gb DRAM Technology	8 Gb DRAM Technology	16 Gb DRAM Technology
Single Rank UDIMM	16 GB (4 x 8 GB DIMMs)	32 GB (4 x 8 GB DIMMs)	64 GB (4 x 16 GB DIMMs)
Dual Rank UDIMMs	32 GB (4 x 8 GB DIMMs)	64 GB (4 x 16 GB DIMMs)	128 GB (4 x 32 GB DIMMs)

Back Panel I/O Connectors



#	Description	#	Description
1	COM1	6	USB5 (3.2 Gen1)
2	USB0 (2.0)	7	LAN1
3	USB1 (2.0)	8	LAN2
4	Dedicated BMC LAN	9	VGA Port
5	USB4 (3.2 Gen1)	10	UID Switch

Note: Refer to Chapter 2 of the User Manual for detailed information on memory support and CPU/motherboard installation instructions.

MNL-2353-QRG-100