SUPERMICRO®
X12STH-F/LN4F
Quick Reference Guide 1.00

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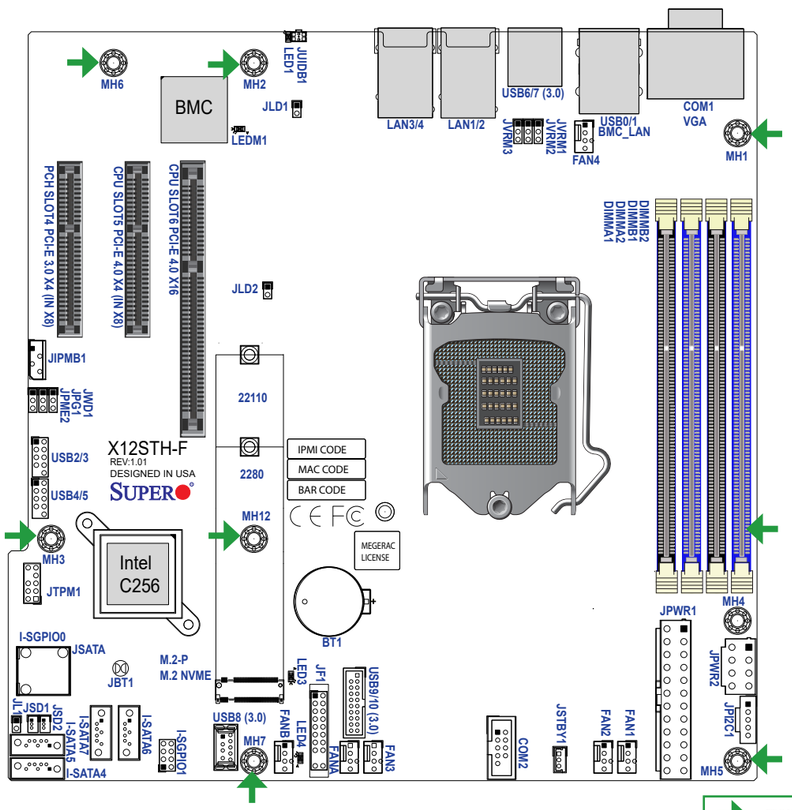
For your system to work properly, please download appropriate drivers/images/user's manual from the links below:
- Manuals: http://www.supermicro.com/support/manuals
- Drivers & Utilities: https://www.supermicro.com/wdl/driver/
- Safety: http://www.supermicro.com/about/policies/safety_information.cfm

Package Contents
- One Supermicro Motherboard
- One Quick Reference Guide
- One I/O Shield
- Four SATA Cables

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



Jumpers and Connectors

Jumpers

Jumper	Description	Default Setting
JBT1	CMOS Clear	Open (Normal)
JPG1	VGA Enable/Disable	Pins 1-2 (Enabled)
JPME2	ME Manufacturing Mode	Pins 1-2 (Normal)
JWD1	Watch Dog Timer	Pins 1-2 (Reset)

Connectors

Connector	Description
BMC_LAN	Dedicated BMC LAN Port
BT1	Onboard Battery
COM1	COM Port
COM2	COM Header
FAN1 - FAN4 FANA, FANB	CPU/System Fan Headers (FAN1: CPU Fan)
JSATA (I-SATA0-3) I-SATA4 - I-SATA7	Intel® PCH SATA 3.0 Ports (with RAID 0, 1, 5, 10 support) I-SATA0-3 to JSATA MiniSAS HD (with PCH RAID) I-SATA4-5 to SATA DOM (with PCH RAID) I-SATA6-7 to SATA (no RAID)
I-SGPIO0 I-SGPIO1	Serial General Purpose I/O Headers
JF1	Front Control Panel Header
JIPMB1	4-pin BMC External I²C Header (for an IPMI card)
JL1	Chassis Intrusion Header
JLD1	LAN3 LINK ACTIVITY LED Header (X12STH-LN4F only)
JLD2	LAN4 LINK ACTIVITY LED Header (X12STH-LN4F only)
JPI²C1	Power I²C System Management Bus (Power SMB) Header
JPWR1	24-pin ATX Power Connector
JPWR2	8-pin CPU Power Connector
JSD1, JSD2	SATA DOM Power Connectors
JSTBY1	Standby Power Header
JTPM1	Trusted Platform Module (TPM)/Port 80 Connector
JUIDB1	UID Switch
LAN1-4	1GbE LAN Ports X12STH-F only: LAN1 - LAN2 X12STH-LN4F only: LAN1 - LAN4
M.2-P, M.2-NVME	M.2 PCIe 3.0 x4 Slot (Supports M-Key 2280 and 22110)
MH1-7, MH12	Mounting Holes
SLOT4	PCH PCIe 3.0 x4 (IN x8) Slot
SLOT5	CPU PCIe 4.0 x4 (IN x8) Slot (SLOT5 will be disabled when a Pentium processor is installed)
SLOT6	CPU PCIe 4.0 x16 Slot (SLOT6 will run at PCIe 3.0 x16 when a Pentium processor is installed)
USB0/1	Back Panel USB 2.0 Ports

Connectors and LED Indicators

Connectors

Connector	Description
USB2/3, USB4/5	Front Accessible USB 2.0 Headers
USB6/7	Back Panel USB 3.2 Gen 1x1 Ports
USB8	Front Accessible USB 3.2 Gen 1x1 Type A Header
USB9/10	Front Accessible USB 3..2 Gen 1x1 Header
VGA	VGA Port

LED Indicators

LED	Description	Status
LED1	Unit Identifier (UID) LED	Solid Blue: Unit Identified
LED3	PCIe M.2 Activity LED	Blinking Green: M.2 Active
LED4	Power LED	LED On: Onboard Power On
LEDM1	BMC Heartbeat LED	Blinking Green: Device Working

CPU Support

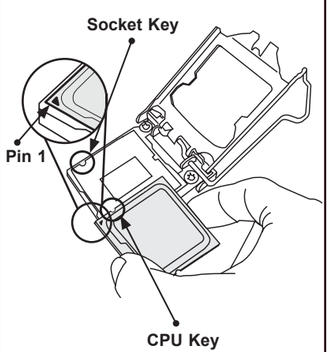
The X12STH-F/LN4F motherboard supports an Intel Xeon E-2300 and 10th Generation Pentium (Socket H5 - LGA 1200) processor with up to eight cores.

Memory Support

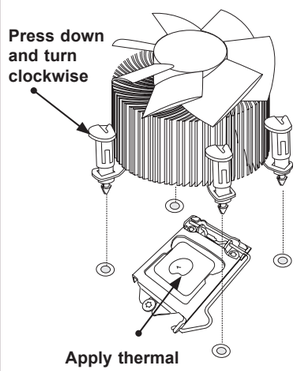
The X12STH-F/LN4F motherboard supports up to 128GB of DDR4 ECC UDIMM meory with speeds of up to 3200MHz in four memory slots.

Speed support is up to 2666MHz when a Pentium processor is installed. Speed support is up to 2933MHz for 2R2R configurations.

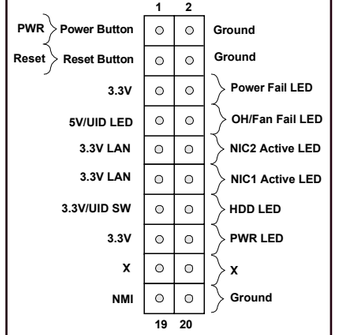
CPU Installation



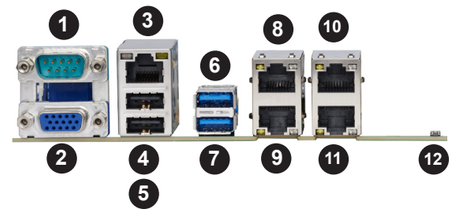
Heatsink Installation



Front Control Panel



Back Panel I/O Connectors



#	Description	#	Description	#	Description
1.	COM1	6.	USB6	11.	LAN4 (-LN4F only)
2.	VGA	7.	USB7	12.	UID Switch
3.	BMC LAN	8.	LAN1		
4.	USB0	9.	LAN2		
5.	USB1	10.	LAN3 (-LN4F only)		

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.

Note: Refer to Chapter 2 of the User Manual for detailed information on jumpers, connectors, and LED indicators.

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

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