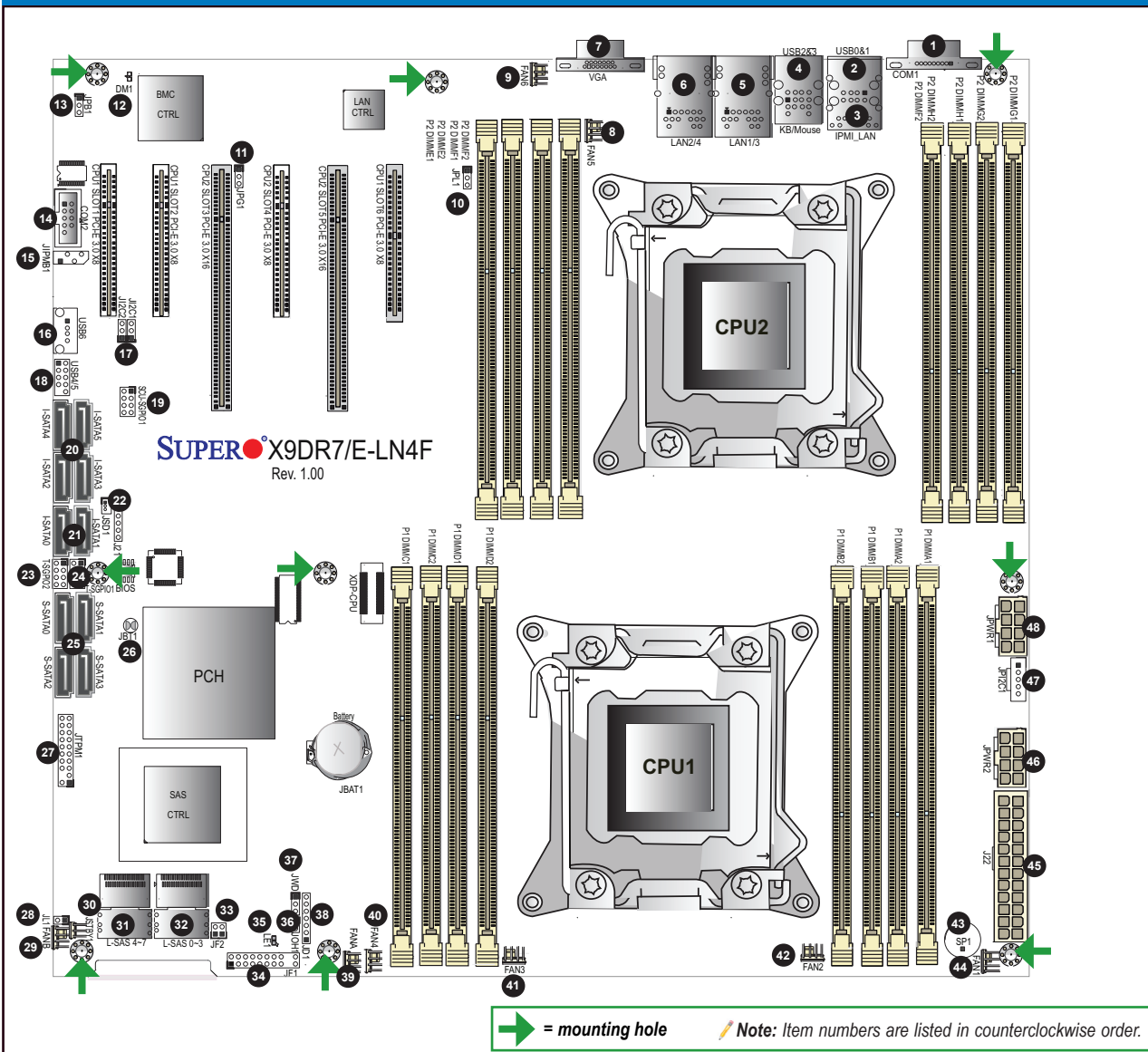


SUPERMICR[®] X9DR7-LN4F/X9DRE-7LN4F QUICK REFERENCE GUIDE

(MNL#1336-QRG)

CONTACT INFO: www.supermicro.com (Email: support@supermicro.com) ♦ Manuals: <http://www.supermicro.com/support/manuals> ♦ Drivers & Utilities: <ftp://ftp.supermicro.com> ♦ Safety: http://www.supermicro.com/about/policies/safety_information.cfm

Motherboard Layout and Features



Jumpers, Connectors and LED Indicators

Jumpers			
Jumper	Item #	Description	Default
J1PC1/J1PC2	17	SMB to PCI-E Slots	Pins 2-3 (Disabled)
JBT1	26	Clear CMOS	See Chpt. 2 in User Manual
JPB1	13	BMC Enabled	Pins 1-2 (Enabled)
JPG1	11	VGA Enabled	Pins 1-2 (Enabled)
JPL1	10	GLAN1-GLAN4 Enable	Pins 1-2 (Enabled)
JWD	37	Watch Dog Timer Enable	Pins 1-2 (Reset)

Connectors		
Connector	Item #	Description
COM1/COM2	1, 14	Back Panel COM Port1/Front Accessible COM2 Header
Fan 1-3	44, 42, 41	CPU/System Fan Headers
Fan 4-6	40, 8, 9	CPU/System Fan Headers
Fan A, Fan B	39, 29	CPU/System Fan Headers
J22	45	ATX 24-Pin Power Connector
JD1	38	Speaker/Power LED Indicator
JF1	34	Front Panel Control Header
JF2	33	Ethernet LAN Port3/LAN Port4 Activity LED Indications
JIPMB1	15	4-pin External BMC I ² C Header (for an IPMI Card)
JL1	28	Chassis Intrusion
JOH1	36	Overheat LED Indicator
J1PC1	47	Power Supply SMBus I ² C Header
JPWR1/2	48, 46	12V 8-Pin Power Connectors
JSD1	22	SATA DOM (Disk on Module) Power Connector
JSTBY1	30	Standby Power Header
JTPM1	27	TPM (Trusted Platform Module)/Port 80
LAN1/3, LAN2/4	5, 6	Gigabit Ethernet LAN Ports 1/ LAN 3, LAN 2/LAN 4
(IPMI) LAN	3	IPMI Dedicated LAN
(L-)SATA 0/1	21	Intel AHCI SATA 3.0 Connectors 0/1
(L-)SATA 2-5	25	Intel AHCI SATA 2.0 Connectors 2-5
(S-)SATA 0-3	21	Intel SCU SATA Connectors 0-3
(L)SAS 0-3, 4-7	32, 31	SAS Connections 0-3, 4-7 supported by LSI SAS Controller (for X9DR7-LN4F)
SP1	43	Onboard Buzzer (Internal Speaker)
SCU-SGPIO 1	19	SCU-SGPIO Header 1 to support S-SATA 0-3 from Intel SCU
T-SGPIO 1/2	24, 23	T-SGPIO Headers 1/2 to support I-SATA 0-5
USB 0/1, 2/3	2, 4	Back Panel USB 0/1, 2/3
USB 4/5	18	Front Panel Accessible USB Header 4/5 (J23)
USB6	16	Front Panel Accessible Type A USB Connector 6 (J25)
VGA	7	Back Panel VGA Port

LED Indicators				
LED	Item #	Description	Color/State	Status
LE1	35	PWR LED	Green: On	Power On
DM1	12	BMC Heartbeat LED	Green	BMC Normal
JF2	33	LAN Port 3/Port4 LED	See User's Guide	

Memory Support

This motherboard supports up to 512 GB of 240-pin Registered (RDIMM)/Load Reduced (LRDIMM) ECC or up to 128 GB of Unbuffered (UDIMM) ECC/Non-ECC DDR3 800/1066/1333/1600 MHz 4-channel (per CPU) memory in 16 DIMM slots.

Note: For memory optimization, use only DIMM modules that have been validated by Supermicro. For the latest memory updates, please refer to our website at <http://www.supermicro.com/products/motherboard>.

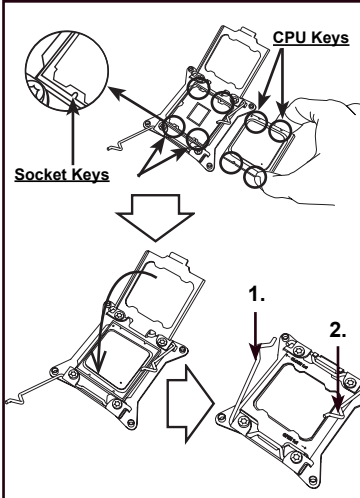
DIMM Installation

Insert the desired number of DIMMs into the memory slots, starting with P1-DIMMA1. For memory to work properly, follow the tables below for memory population order. Refer to the motherboard layout (at left) for the location of the DIMM slots.

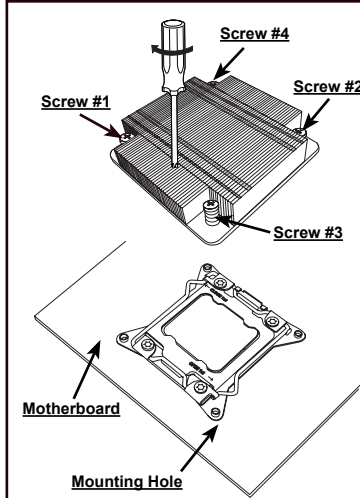
Processors and their Corresponding Memory Modules								
CPU#	Corresponding DIMM Modules							
CPU 1	P1-DIMMA1	P1-DIMMB1	P1-DIMMC1	P1-DIMMD1	P1-DIMMA2	P1-DIMMB2	P1-DIMMC2	P1-DIMMD2
CPU2	P2-DIMME1	P2-DIMMF1	P2-DIMMG1	P2-DIMMH1	P2-DIMME2	P2-DIMMF2	P2-DIMMG2	P2-DIMMH2

Processor and Memory Module Population for Optimal Performance	
Number of CPUs+DIMMs	CPU and Memory Population Configuration Table (For memory to work properly, please follow the instructions below.)
1 CPU & 2 DIMMs	CPU1 P1-DIMMA1/P1-DIMMB1
1 CPU & 4 DIMMs	CPU1 P1-DIMMA1/P1-DIMMB1, P1-DIMMC1/P1-DIMMD1
1 CPU & 5-8 DIMMs	CPU1 P1-DIMMA1/P1-DIMMB1, P1-DIMMC1/P1-DIMMD1 + Any memory pairs in P1-DIMMA2/P1-DIMMB2/P1-DIMMC2/P1-DIMMD2 slots
2 CPUs & 4 DIMMs	CPU1 + CPU2 P1-DIMMA1/P1-DIMMB1, P2-DIMME1/P2-DIMMF1
2 CPUs & 6 DIMMs	CPU1 + CPU2 P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1, P2-DIMME1/P2-DIMMF1
2 CPUs & 8 DIMMs	CPU1 + CPU2 P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1, P2-DIMME1/P2-DIMMF1/P2-DIMMG1/P2-DIMMH1
2 CPUs & 10-16 DIMMs	CPU1/CPU2 P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1, P2-DIMME1/P2-DIMMF1/P2-DIMMG1/P2-DIMMH1 + Any memory pairs in P1, P2 DIMM slots
2 CPUs & 16 DIMMs	CPU1/CPU2 P1-DIMMA1/P1-DIMMB1/P1-DIMMC1/P1-DIMMD1, P2-DIMME1/P2-DIMMF1/P2-DIMMG1/P2-DIMMH1, P1-DIMMA2/P1-DIMMB2/P1-DIMMC2/P1-DIMMD2, P2-DIMME2/P2-DIMMF2/P2-DIMMG2/P2-DIMMH2

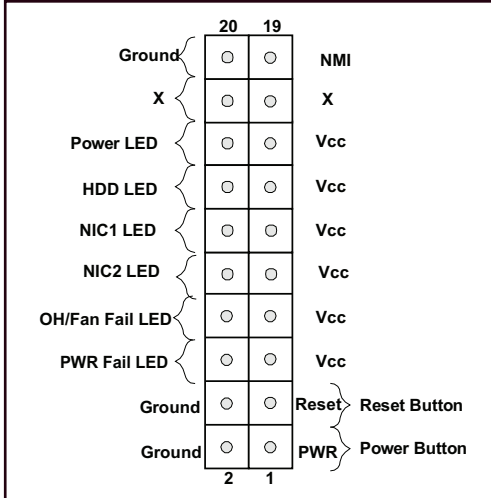
CPU Installation



Heatsink Installation



Front Panel Control (JF1)



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 1 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.

Back Panel IO Connectors

