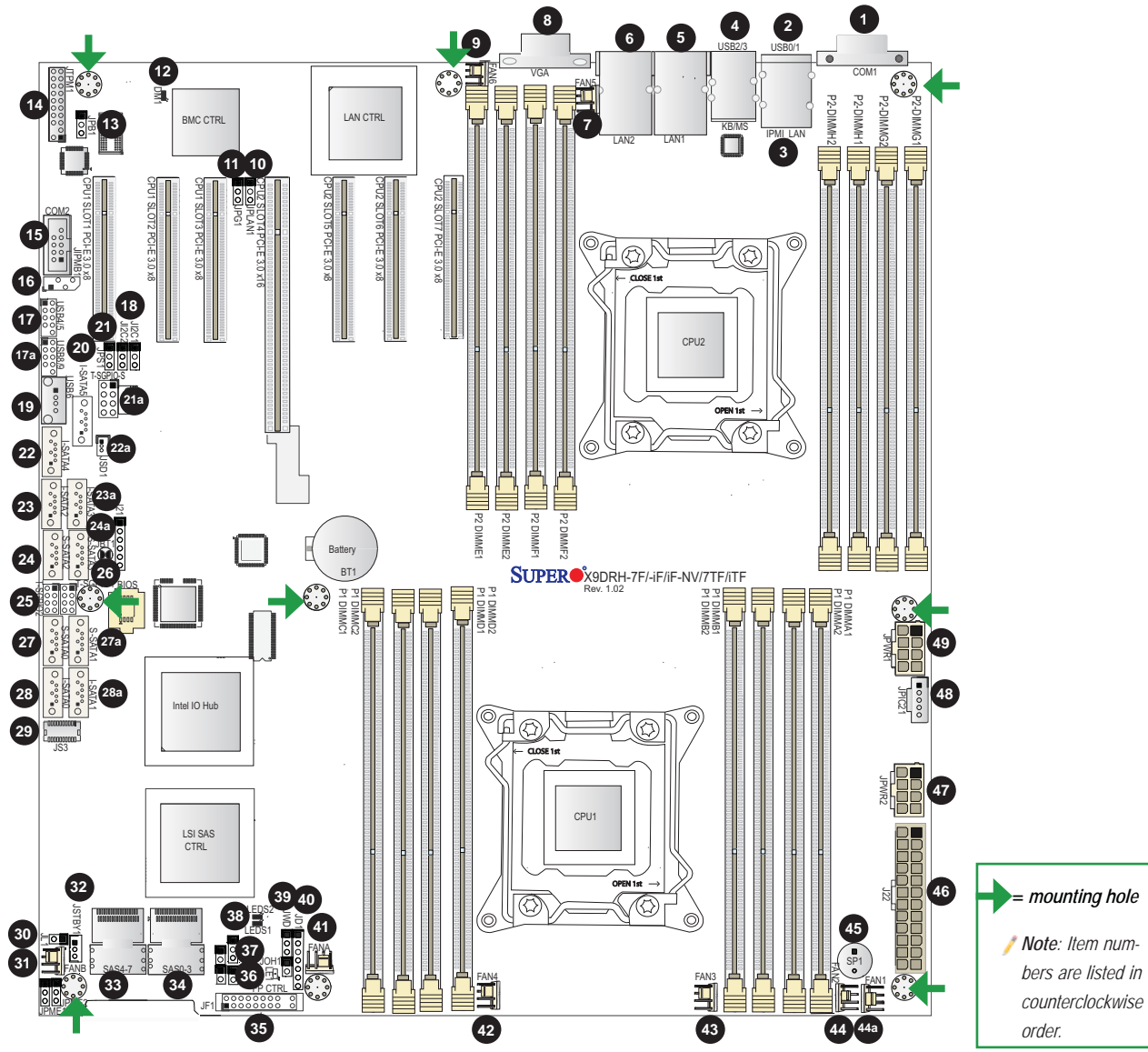


Motherboard Layout and Features



Jumpers, Connectors and LED Indicators

Jumpers

Jumper	Item #	Description	Default
JBT1	26	Clear CMOS	See Chpt 2. in User Manual
JPC1/JPC2	18	SMB to PCI-E Slots	Pins 2-3 (Normal)
JPB1	13	BMC Enable	Pins 1-2 (Enabled)
JPG1	11	VGA Enable	Pins 1-2 (Enabled)
JPLAN1	10	LAN1/LAN2 Enable	Pins 1-2 (Enabled)
JPS1	21	SAS Enable	Pins 1-2 (Enabled)
JWD	39	Watch Dog	Pins 1-2 (Reset)

Connectors

Connector	Item #	Description
COM1/COM2	1, 15	Back Panel COM Port1/Front Accessible COM2 Header
Fan1-Fan4	44a, 44, 43, 42	CPU/System Fan Headers
Fan5/6, FanA, FanB	7, 9, 41, 31	CPU/System Fan Headers (5/6) & IO Slot Fan Headers (A/B)
J22	46	ATX 24-Pin Power Connector
JD1	40	Speaker/Power LED Indicator
JF1	35	Front Panel Control Header
JIPMB1	16	4-pin External BMC I°C Header (for an IPMI Card)
JL1	30	Chassis Intrusion
JOH1	37	Overheat/Fan Fail LED
JPPC1	48	Power Supply SMBbus I°C Header
JPWR1/JPWR2	49, 47	12V 8-Pin Power Connectors
JSD1	22a	SATA DOM (Disk On Module) Power Header
JSTBY1	32	Standby Power
JTPM1	14	TPM (Trusted Platform Module)/Port 80 Header
KB/MS	4	Backplane USB with Keyboard/Mouse Support
LAN1/2	5, 6	GLAN Ports 1/2 for -7F/-iF, 10GLAN Ports 1/2 for -7TF/-iTF
(IPMI) LAN	3	IPMI Dedicated LAN
(I-)SATA 0/1	28, 28a	Intel SATA 3.0 Connectors 0/1 (from AHCI)
(I-)SATA 2/3/4/5	23, 23a, 22, 20	Intel SATA 2.0 Connectors (from AHCI): SATA2/3 (T-SGPI01) & SATA4/5 (T-SGPI02)
(S-)SATA 0-3	27, 27a, 24, 24a	SATA 2.0 Connectors 0-3 (from SCU)
SAS 0-3, 4-7	34, 33	Serial Attached SCSI Connectors 0-3, 4-7 (X9DRH-7F/7TF)
SP1	45	Onboard Buzzer (Internal Speaker)
T-SGPI01/2	25	Serial_Link General Purpose IO Headers (for I-SATA 0-3, 4/5)
T-SGPI0-S	21a	Serial Link General Purpose IO Header (used with S-SATA 0-3)
USB 0/1, 2/3	2, 4	Back Panel USB 0/1, 2/3
USB 4/5, USB 8/9	17, 17a	Front Panel USB 4/5, USB 8/9 Header
USB 6	19	Front Panel Type A USB 6 Header
VGA	8	Back Panel VGA Port (JVGA)

LED Indicators

LED	Item #	Description	Color/State	Status
DM1	12	BMC Heartbeat LED	Green: Blinking	Normal
LE1	36	Power LED	Green: On	On
LEDS1	38	SAS Heartbeat LED	Green: Blinking	Normal
LEDS2	38	SAS Fault LED	Red: On	SAS Failure

Memory Support

This motherboard supports up to 1TB of 240-pin Registered (RDIMM)/Load Reduced (LRDIMM)/Non-Volatile (NVDIMM) ECC or Unbuffered (UDIMM) ECC/Non-ECC DDR3 1866/1600/1333/1066/800 MHz memory in 16 slots (1866 MHz is not available on NVDIMMs.)

Note 1: For the latest memory updates, please refer to our website at <http://www.supermicro.com/products/motherboard>.

Note 2: NVDIMM is available on the X9DRH-iF & X9DRH-iF-NV only. Please contact your Supermicro sales representatives for the most current list of supported NVDIMM modules. 1866MHz is not supported by NVDIMM.

Note 3: Please consult the installation guide provided by your NVDIMM vendor for installation of NVDIMMs and the corresponding Supercap.

Note 4: Supercap is optional and is sold separately. Please contact your sales representative or our tech support for Supercap support.

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.

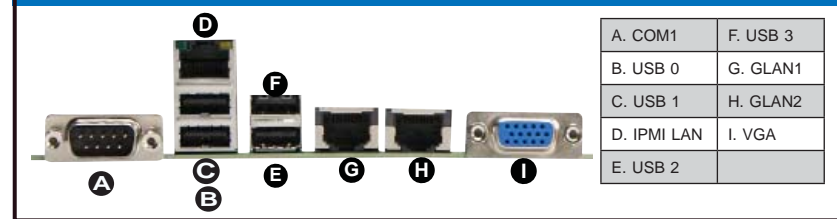
Processors and their Corresponding Memory Modules

CPU#	Corresponding DIMM Modules							
	P1-DIMMA1	P1-DIMMB1	P1-DIMMC1	P1-DIMMD1	P1-DIMMA2	P1-DIMMB2	P1-DIMMC2	P1-DIMMD2
CPU1								
CPU2	P2-DIMME1	P2-DIMMF1	P2-DIMMG1	P2-DIMMH1	P2-DIMME2	P2-DIMMF2	P2-DIMMG2	P2-DIMMH2

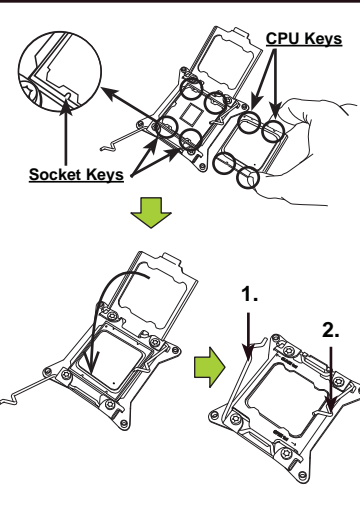
Processor and Memory Module Population for Optimal Performance

Number of CPUs+DIMMs	CPU and Memory Population Configuration Table (For memory to work properly, please follow the instructions below.)	
	CPU	Memory
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

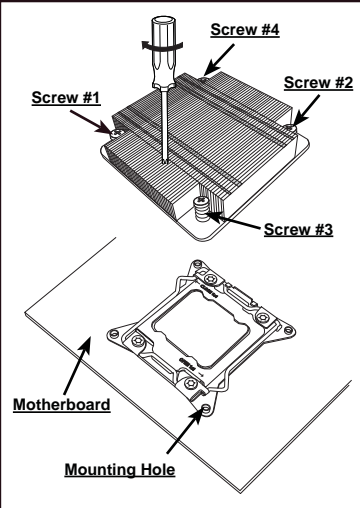
Back Panel IO Connectors



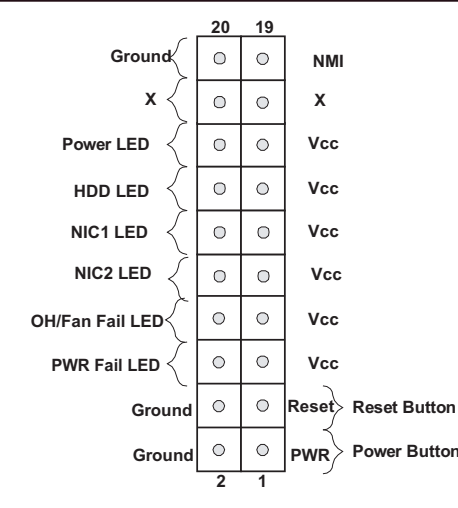
CPU Installation



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 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.