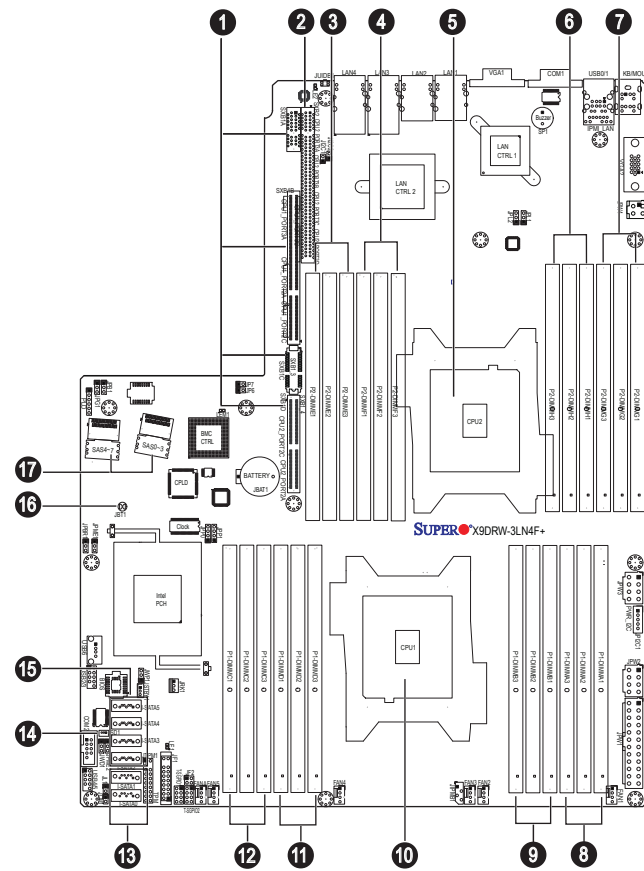


Board Layout



| No. | Description |
|-----|--|
| 1 | SXB1A/SXB1B/SXB1C/SXB1D: SMC-Proprietary WIO_L (Left) Add-On Card Slot |
| 2 | SXB2: SMC-Proprietary WIO_R (Right) Add-On Card Slot |
| 3 | P2-DIMME1(Blue)/P2-DIMME2/P2-DIMME3 slot |
| 4 | P2-DIMMF1(Blue)/P2-DIMMF2/P2-DIMMF3 slot |
| 5 | CPU2 |
| 6 | P2-DIMMH1(Blue)/P2-DIMMH2/P2-DIMMH3 slot |
| 7 | P2-DIMMG1(Blue)/P2-DIMMG2/P2-DIMMG3 slot |
| 8 | P1-DIMMA1(Blue)/P2-DIMMA2/P2-DIMMA3 slot |
| 9 | P1-DIMMB1(Blue)/P2-DIMMB2/P2-DIMMB3 slot |
| 10 | CPU1 (Install CPU1 first) |
| 11 | P1-DIMMD1(Blue)/P2-DIMMD2/P2-DIMMD3 slot |
| 12 | P1-DIMMC1(Blue)/P2-DIMMC2/P2-DIMMC3 slot |
| 13 | SATA 3 Ports 0~1 (from Intel SB) |
| 14 | JSD1 = SATA DOM Power |
| 15 | SATA 2 Ports 2~5 (from Intel SB) |
| 16 | JBT1 = CMOS Reset |
| 17 | SAS ports 0~3, 4~7 (from Intel SB) |

MEMORY

Processors and their Corresponding Memory Modules

| CPU# | Processors and their Corresponding Memory Modules | | | | | | | | | | | |
|-------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| CPU 1 | P1-A1 | P1-A2 | P1-A3 | P1-B1 | P1-B2 | P1-B3 | P1-C1 | P1-C2 | P1-C3 | P1-D1 | P1-D2 | P1-D3 |
| CPU 2 | P2-E1 | P2-E2 | P2-E3 | P1-F1 | P1-F2 | P1-F3 | P1-G1 | P1-G2 | P1-G3 | P1-H1 | P1-H2 | P1-H3 |

Processor and Memory Module Population

| Number of CPUs+DIMMs | CPU and Memory Population Configuration Table (For memory to work properly, please follow the tables below.) |
|----------------------------|---|
| 1 CPU & 2 DIMMs | CPU1 P1-A1/P1-B1 |
| 1 CPU & 4 DIMMs | CPU1 P1-A1/P1-B1, P1-C1/P1-D1 |
| 1 CPU & 5~8 DIMMs | CPU1 P1-A1/P1-B1, P1-C1/P1-D1, P1-A2/P1-B2, P1-C2/P1-D2 |
| 2 CPUs & 4 DIMMs | CPU1 + CPU2 P1-A1/P1-B1, P2-E1/P2-F1 |
| 2 CPUs & 6 DIMMs | CPU1 + CPU2 P1-A1/P1-B1, P2-E1/P2-F1, P1-C1/P1-D1 |
| 2 CPUs & 8 DIMMs | CPU1 + CPU2 P1-A1/P1-B1, P2-E1/P2-F1, P1-C1/P1-D1, P2-G1/P2-H1 |
| 2 CPUs & 9~12 DIMMs | CPU1/CPU2 P1-A1/P1-B1, P2-E1/P2-F1, P1-C1/P1-D1, P2-G1/P2-H1, P1-A2/P1-B2, P2-E2/P2-F2 |
| 2 CPUs & 13 DIMMs~24 DIMMs | CPU1/CPU2 P1-A1/P1-B1, P2-E1/P2-F1, P1-C1/P1-D1, P2-G1/P2-H1, P1-A2/P1-B2, P2-E2/P2-F2, P1-C2/P1-D2, P2-G2/P2-H2, P1-A3/P1-B3, P2-E3/P2-F3, P1-C3/P1-D3, P2-G3/P2-H3 |

UDIMM Support

| DIMMs Populated per DDR Channel | UDIMM Type (Unb. DIMM) | POR Speeds (in MHz) | Ranks per DIMM (Any Combination) |
|---------------------------------|------------------------|---------------------|----------------------------------|
| 1 | ECC/Non-ECC DDR3 | 1066, 1333 | SR, DR |
| 2 | ECC/Non-ECC DDR3 | 1066, 1333 | SR, DR |

RDIMM Support

| DIMMs Populated per DDR Channel | RDIMM Type (Reg. DIMM) | POR Speeds (in MHz) | Ranks per DIMM (Any Combination) |
|---------------------------------|------------------------|---------------------|----------------------------------|
| 1 | Reg. ECC DDR3 | 1066, 1333, 1600 | SR, DR |
| 2 | Reg. ECC DDR3 | 1066, 1333, 1600 | SR, DR |
| 3 | Reg. ECC DDR3 | 800, 1066 | SR, DR |
| 1 | Reg. ECC DDR3 | 1066 | QR |
| 2 | Reg. ECC DDR3 | 800 | QR |

LRDIMM Support

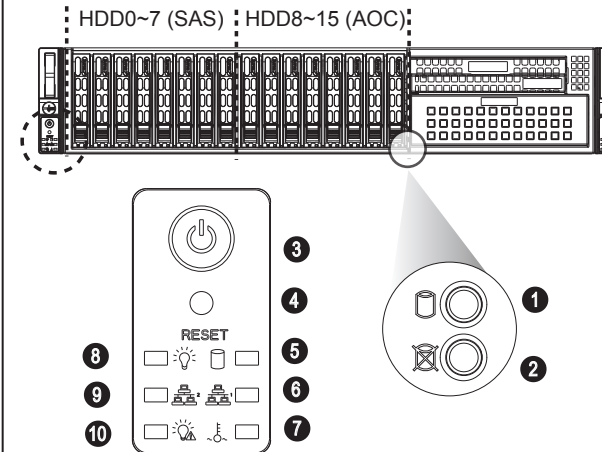
| DIMMs Populated per DDR Channel | LRDIMM Type (Load Reduced DIMM) | POR Speeds (in MHz) | Ranks per DIMM (Any Combination) |
|---------------------------------|---------------------------------|---------------------|----------------------------------|
| 1 | LR ECC DDR3 | 1066, 1333 | QR |
| 2 | LR ECC DDR3 | 1066, 1333 | QR |
| 3 | LR ECC DDR3 | 1066 | QR |

Note: All channels in a system will run at the fastest common frequency.

Beep Codes

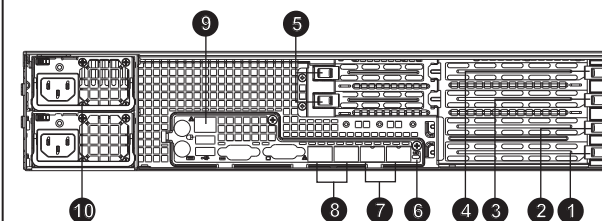
| Beep Code | Error Message | Description |
|-------------------------------|------------------------------|---|
| 1 beep | Refresh | Circuits have been reset (Ready to power up) |
| 5 short beeps and 1 long beep | Memory error | No memory detected in the system |
| 5 beeps | No Con-In or Con-Out devices | Con-In includes USB or PS/2 keyboard, PCI or serial console redirection, IPMI KVM or SOL. Con-Out includes video controller, PCI or serial console redirection, IPMI SOL. |

Front View & Interface



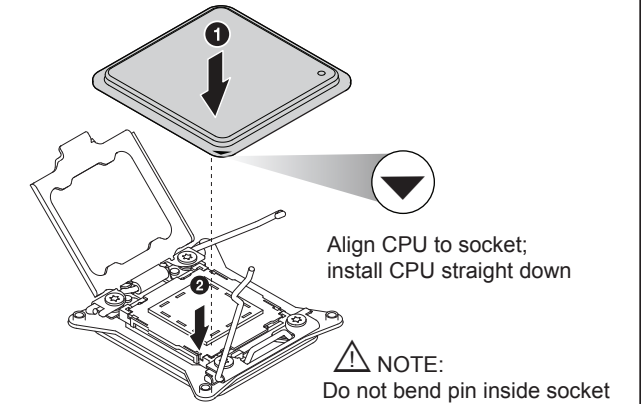
| No. | Description |
|-----|-------------------------|
| 1 | Hard Drive Signal |
| 2 | Hard Drive Fail |
| 3 | Power Button |
| 4 | Reset Button |
| 5 | Device Activity LED |
| 6 | LAN1 LED |
| 7 | Overheat & Fan Fail LED |
| 8 | Power LED |
| 9 | LAN2 LED |
| 10 | Power Failure LED |

Rear View

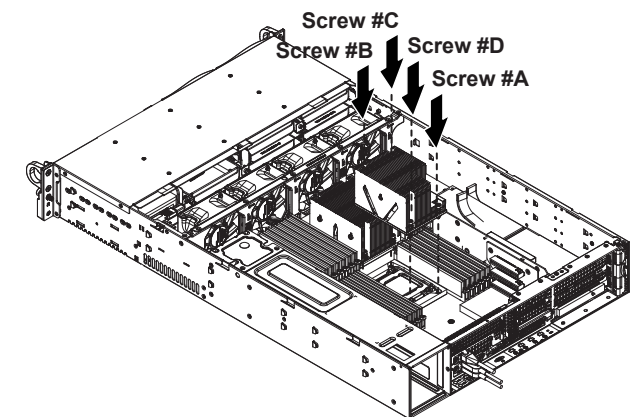


| No. | Description |
|-----|--|
| 1 | PCI-E 3.0 x16 Expansion Slot (FH, 6.6"L) |
| 2 | PCI-E 3.0 x16 Expansion Slot (FH, 10"L) |
| 3 | PCI-E 3.0 x16 Expansion Slot (FH, 16.5"L) |
| 4 | PCI-E 3.0 x16 Expansion Slot (FH, 16.5"L) |
| 5 | PCI-E 3.0 x8 Expansion Slot (LP, 6.6"L) |
| 6 | UID Button (Unit Identifier Button) |
| 7 | LAN3 & LAN4 (1GbE for N3RF4+ SKU, 10GbBase-T for N3RFT+ SKU) |
| 8 | LAN1 & LAN2 (1GbE) |
| 9 | Dedicated LAN for IPMI |
| 10 | Power Supply Module |

CPU Installation



Heatsink Installation



- Place heatsink on top of installed CPU
- Line up the four screws to socket
- Push down heatsink and screw down as shown (cross pattern, in order: A, C, B, D)
- NOTE: Only use 6-8 lb/f of torque; otherwise, hand-tighten each screw, to avoid damaging the system

Caution

SAFETY INFORMATION
IMPORTANT: See installation instructions and safety warning before connecting system to power supply.
http://www.supermicro.com/about/policies/safety_information.cfm

WARNING:
To reduce risk of electric shock/damage to equipment, disconnect power from server by disconnecting all power cords from electrical outlets.
If any CPU socket empty, install protective plastic CPU cap

CAUTION:
Always be sure all power supplies for this system have the same power output. If mixed power supplies are installed, the system will not operate.

For more information go to :
<http://www.supermicro.com/support>

