Motherboard Layout and Features

= mounting hole

Jumpers/Connectors/LED Indicators

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

Component	Description
BT1	Onboard CMOS battery
COM1	COM port on the I/O back panel
FAN1~6, FANA/FANB	System/cooling fan headers
IPMI_LAN	Dedicated IPMI LAN port
I-SATA0~3, I-SATA4~7	SATA 3.0 ports supported by the Intel PCH
JD1	Speaker/buzzer header (used in conjunction with an external speaker/buzzer) (optional)
JF1	Front control panel header
JIPMB1	4-pin external I²C header (for an IPMI card)
JL1	Chassis intrusion header (For this feature to work properly, please connect chassis intrusion switch into this header.)
JNCSI	Network Controller Sideband Interface (NCSI) header
JPI²C1	Power I²C System Management Bus (SMBus) header
JPWR1, JPWR2, JPWR4	8-pin power supply connectors
JPWR3	24-pin ATX main power supply connector
JRK1	Intel RAID key for NVMe SSD (Solid State Devices)
JSD1, JSD2	SATA DOM (Device-on-Module) power connectors
JSDCARD1	Micro SD card slot
JSTBY1	Standby power header
JTPM1	Trusted Platform Module (TPM)/Port 80 connector
JUIDB1	Unit Identifier (UID) switch
LAN1, LAN2	10GbE LAN ports (for the X11DPH-T(q)) and Gigabit LAN ports (for the X11DPH-i)
M.2-CPU1, M.2-CPU2	PCIE M.2 slots (w/VMD support)
MH4, MH11	M.2 mounting holes
SLOTS 1/3/6/7	PCI-Express 3.0 x8 slots supported by CPU1
SLOTS 2/4/5	PCI-Express 3.0 x16 slots supported by CPU2
S-SATA0, S-SATA1	Powered SATA 3.0 ports with support of Supermicro SuperDOM (Disk-On-Module)
T-SGPIO1	Serial_Link General Purpose I/O (GPI/O) port
USB0/1, USB2/3	Back Panel Universal Serial Bus (USB) 3.0 ports
USB4/5	Internal USB 3.0 header with two USB (USB4/5) connections supported for front access
USB6	Type A USB 3.0 header for front access
VGA	VGA port

LED	Description	LED Status
LE1	UID (Unit Identifier) LED	Solid Blue: Unit identified
LE2	Onboard Power LED	Solid Green: Power On
LEDM1	BMC Heartbeat LED	Blinking Green: BMC normal

CPU Support

This motherboard supports dual Intel Xeon Scalable-SP or 2nd Gen Intel Xeon Scalable-SP series processors with support of 3 UltraPath Interconnect (UPI) of 10.4GT/s.

Memory Support

This motherboard supports up to 4TB of 3DS LRDIMM, LRDIMM, 3DS RDIMM, RDIMM, NV-DIMM DDR4 (288-pin) ECC 2933/2666/2400/2133 MHz memory modules in 16 slots. (**Notes**: **1**. Up to 5TB is supported with (L)RDIMM and DCPMM populated in a balanced memory configuration. **2**. 2933 MHz memory is supported by 2nd Gen Intel Xeon Scalable-SP(82xx/62xx) series processors only. **3**. Unbalanced memory configuration decreases memory performance and is not recommended.)
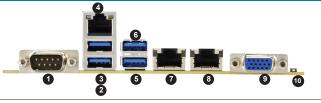
DIMM Population Table

When 1 CPU is used:	Memory Population Sequence
1 CPU & 1 DIMM	CPU1: P1-DIMMA1
1 CPU & 2 DIMMs	CPU1: P1-DIMMA1/P1-DIMMD1
1 CPU & 3 DIMMs	CPU1: P1-DIMMC1/P1-DIMMB1/P1-DIMMA1
1 CPU & 4 DIMMs	CPU1: P1-DIMMB1/P1-DIMMA1/P1-DIMMD1/P1-DIMME1
1 CPU & 5 DIMMs (Unbalanced: not recommended)	CPU1: P1-DIMMC1/P1-DIMMB1/P1-DIMMA1/P1-DIMMD1/P1-DIMME1
1 CPU & 6 DIMM	CPU1: P1-DIMMC1/P1-DIMMB1/P1-DIMMA1/P1-DIMMD1/P1-DIMME1/P1-DIMMF1
1 CPU & 7 DIMMs (Unbalanced: not recommended)	CPU1:P1-DIMMC1/P1-DIMMB1/P1-DIMMA1/P1-DIMMA2/P1-DIMMD1/P1-DIMME1/P1-DIMMF1
1 CPU & 8 DIMMs (Unbalanced: not recommended)	CPU1: P1-DIMMC1/P1-DIMMB1/P1-DIMMA1/P1-DIMMA2/P1-DIMMD2/P1-DIMMD1/P1-DIMME1/P1-DIMMF1
When 2 CPUs are used:	Memory Population Sequence
2 CPUs & 2 DIMMs	CPU1: P1-DIMMA1 / CPU2: P2-DIMMA1
2 CPUs & 4 DIMMs	CPU1: P1-DIMMA1/P1-DIMMD1 / CPU2: P2-DIMMA1/P2-DIMMD1
2 CPUs & 6 DIMMs	CPU1: P1-DIMMC1/P1-DIMMB1/P1-DIMMA1 / CPU2: P2-DIMMC1/P2-DIMMB1/P2-DIMMA1
2 CPUs & 8 DIMMs	CPU1: P1-DIMMB1/P1-DIMMA1/P1-DIMMD1/P1-DIMME1 / CPU2: P2-DIMMB1/P2-DIMMA1/P2-DIMMD1/P2-DIMME1
2 CPUs & 10 DIMMs	CPU1: P1-DIMMC1/P1-DIMMB1/P1-DIMMA1/P1-DIMMD1/P1-DIMME1/P1-DIMMF1 / CPU2: P2-DIMMC1/P2-DIMMB1/P2-DIMMA1/P2-DIMMD1/P2-DIMME1/P2-DIMMF1
2 CPUs & 12 DIMMs	CPU1: P1-DIMMC1/P1-DIMMB1/P1-DIMMA1/P1-DIMMD1/P1-DIMME1/P1-DIMMF1 / CPU2: P2-DIMMC1/P2-DIMMB1/P2-DIMMA1/P2-DIMMD1/P2-DIMME1/P2-DIMMF1
2 CPUs & 14 DIMMs (Unbalanced: not recommended)	CPU1: P1-DIMMC1/P1-DIMMB1/P1-DIMMA1/P1-DIMMA2/P1-DIMMD1/P1-DIMME1/P1-DIMMF1 / CPU2: P2-DIMMC1/P2-DIMMB1/P2-DIMMA1/P2-DIMMA2/P2-DIMMD1/P2-DIMME1/P2-DIMMF1
2 CPUs & 16 DIMMs (Unbalanced: not recommended)	CPU1: P1-DIMMC1/P1-DIMMB1/P1-DIMMA1/P1-DIMMA2/P1-DIMMD1/P1-DIMME1/P1-DIMMF1 / CPU2: P2-DIMMC1/P2-DIMMB1/P2-DIMMA1/P2-DIMMA2/P2-DIMMD1/P2-DIMME1/P2-DIMMF1

PCI-E M.2 Slot Installation

Hole Location on the MB 42		
M.2 Card 60	A+B+C	
M.2 Card 80	A+B+C	
M.2 Card 110	A+B+D	

Back Panel I/O Connectors

Back Panel I/O Ports

No.	Port	No.	Port
1.	COM1	6.	USB 3 (USB 3.0)
2.	USB 0 (USB 3.0)	7.	GLAN1 (X11DPH-i), 10G_LAN1 (X11DPH-T/X11DPH-Tq)
3.	USB 1 (USB 3.0)	8.	GLAN2 (X11DPH-i), 10G_LAN2 (X11DPH-T/X11DPH-Tq)
4.	IPMI LAN	9.	VGA
5.	USB 2 (USB 3.0)	10.	Unit Identifier Switch (UID)

CPU/Heatsink Installation

Installing Processor/Heatsink Module

Use a torque of 12 lbf-in
T30 Torx Driver

Mounting the Processor Heatsink Module into the CPU socket (on the motherboard)

Tighten the screws in the sequence of 1, 2, 3, 4 (top 3 quarter view)

Front Control Panel (JF1)

	1	2	
PWR — Power Button	o	o	Ground
Reset — Reset Button	o	o	Ground
3.3V	o	o	Power Fail LED
UID LED	o	o	OH/Fan Fail LED
3.3V Stby	o	o	NIC2 Active LED
3.3V Stby	o	o	NIC1 Active LED
3.3V Stby	o	o	HDD LED
3.3V Stby	o	o	PWR LED
X	o	o	X
NMI	o	o	Ground
	19	20	

Notes: 1. Please refer to Chapter 2 of the user's manual for detailed instructions of CPU/Heatsink and memory installation. 2. Please refer to our website at www.supermicro.com for CPU/Memory support updates. 3. All graphics shown in this quick reference guide are for illustration only. Your components may or may not look the same as the graphics shown in this quick reference guide.