CONTACT INFORMATION

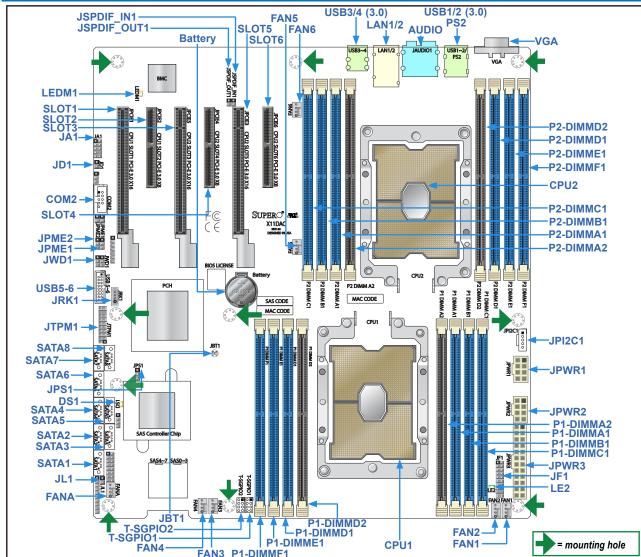
- Website: www.supermicro.com
- General Information: marketing@supermicro.com
- **QUICK REFERENCE GUIDE REV. 1.0c** Technical Support: support@supermicro.com
   Phone: +1 (408) 503-8000, Fax: +1 (408) 503-8008
- FOR YOUR SYSTEM TO WORK PROPERLY, PLEASE DOWNLOAD APPROPRIATE DRIVERS/IMAGES/USER'S MANUAL FROM THE LINKS BELOW:
- Manuals: http://www.supermicro.com/support/manuals
- Drivers & Utilities: http://www.supermicro.com/wftp
- Safety: http://www.supermicro.com/about/policies/safety\_information.cfm

#### PACKAGE CONTENTS

- One (1) Supermicro Motherboard
- Six (6) SATA Cables
- One (1) I/O Shield
- One (1) Supermicro QRG



## **Motherboard Layout and Features**

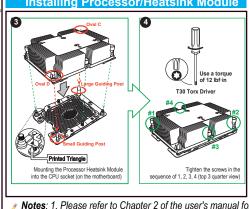


#### **CPU/Heatsink Installation**

Fabric CPU and Processor Clip

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# **Installing Processor/Heatsink Module**



	1	2	
PWR Power Button	0	0	Ground
Reset Button	0	0	Ground
3.3V	0	0	Power Fail LED
UID LED	0	0	OH/Fan Fail LED
3.3V Stby	0	0	NIC2 Active LED
3.3V Stby	0	0	NIC1 Active LED
3.3V Stby	0	0	HDD LED
3.3V	0	0	PWR LED
x	0	0	] > x
NMI	0	0	Ground
	19	20	

**Front Control Panel (JF1)** 

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.

## **Jumpers/Connectors/LED Indicators**

Jumper						
JBT1	CMOS Clear			Open (Normal)		
JPME1	ME Recovery			Pins 1-2 (Normal)		
JPME2	Manufactu	nufacturing Mode Select		Pins 1-2 (Normal)		
JPS1	SAS Statu	AS Status		Pins 1-2 (Enabled)		
JWD1	Watch Do	atch Dog Timer Enable		Pins 1-2 (Reset)		
Connectors  BT1 Onboard CMOS battery socket						
COM2		Onboard CMOS battery so				
FAN1-6, FANA		COM header for front acce				
SATA0~3, SATA 4	~7	System/cooling fan header		. ,		
JA1	~7	SATA 3.0 headers supporte				
JD1		Audio header for front access  Speaker/buzzer header (optional) (Note 1)				
JF1		Speaker/buzzer neader (op		, ,		
JL1						
JPI <sup>2</sup> C1		Chassis Intrusion header (Note 2)				
JPWR1/JPWR2		Power Supply SMBus I <sup>2</sup> C				
JPWR3		8-pin Power Supply conne				
JRK1		24-pin ATX main power su				
JSPDIF IN1/JSPE	Intel VROC RAID Key fo		-			
JTPM1	_					
		Port 80 connector for Trusted Platform Module (TPM)		` '		
LAN1/LAN2 SAS0~3		Dual 1GbE Ethernet ports on the Id				
SAS0~3 SAS4~7	SAS Connections 0-3 supported by LSI SAS 3008 Control		•			
		SAS Connections 4-7 supported by LSI SAS 3008 Controlle				
SLOT1		PCI-Express 3.0 x16 Slot su				
SLOT2		PCI-Express 3.0 x8 Slot su		,		
SLOTA/SLOTS		PCI-Express 3.0 x16 Slots supported by CPU2				
SLOT4/SLOT6	100	PCI-Express 3.0 x8 Slots supported by CPU2				
T-SGPIO1/T-SGPI	102	General Purpose Serial I/O Port1/Port2				
USB1/2, USB3/4		Back panel USB 3.0 Ports 1/2, 3/4				
USB5/6		Front Accessible USB 3.0 header				
VGA VGA Port  LED Indicators						
DS1	SAS Hea	artbeat LED		Green: SAS Normal		
LE2	Onboard Power LED		On: Onboard power on			
LEDM1	BMC He	BMC Heartbeat LED Blinking		Green: BMC normal		

#### Notes: 1. This feature is available when an external speaker/buzzer is used. 2. Please connect a cable from the Chassis Intrusion header at JL1 to the chassis to receive an alert via IPMI. 3. To avoid causing interference with other components, please be sure to use an add-on card that is fully compliant with the PCI-standard on a PCI slot.

## **CPU Support**

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

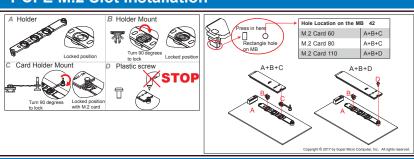
### **Memory Support**

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. 2933 MHz memory is supported by 2nd Gen Intel Xeon Scalable-SP(82xx/62xx) series processors only. 2. Unbalanced memory configuration decreases memory performance and is not recommended.)

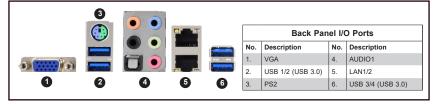
When 1 CPU is used:	Memory Population Sequence				
1 CPU & 1 DIMM	CPU1: P1-DIMMA1				
1 CPU & 2 DIMMs	CPU1: P1-DIMMA1/P1-DIMMD1				
1 CPU & 3 DIMMs	CPU1: P1-DIMMC1/P1-DIMMB1/P1-DIMMA1				
1 CPU & 4 DIMMs	CPU1: P1-DIMMB1/P1-DIMMA1/P1-DIMMD1/P1-DIMME1				
1 CPU & 5 DIMMs (Unbalanced: not recommended)	CPU1: 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-DIMMB1/P1-DIMMB2/P1-DIMMA1/P1-DIMMA2/P1-DIMMD1/P1-DIMME1/P1-DIMMF1				
1 CPU & 8 DIMMs (Unbalanced: not recommended)	CPU1: P1-DIMMB1/P1-DIMMB2/P1-DIMMA1/P1-DIMMA2/P1-DIMMD2/P1-DIMMD1/P1-DIMME1/P1-DIMME				
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-DIMMB1/P2-DIMMA1/P2-DIMMD1/P2-DIMME1				
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-DIMMF1				
2 CPUs & 16 DIMMs (Unbalanced; not recommended)	CPU1: P1-DIMMC1/P1-DIMMB1/P1-DIMMA1/P1-DIMMA2/P1-DIMMD2/P1-DIMMD1/P1-DIMME1/P1-DIMME CPU2: P2-DIMMC1/P2-DIMMB1/P2-DIMMA1/P2-DIMMA2/P2-DIMMD2/P2-DIMMD1/P2-DIMME1/P1-DIMME1/P1-DI				

Notes: 1. Memory speed is dependent on the type of processors used in the system. 2. Using unbalanced memory topology such as populating two DIMMs in one channel while populating one DIMM in another channel on the same motherboard will result in reduced memory performance. 3. To avoid causing interference with other components, please be sure to use an add-on card that is fully compliant with the PCI Standards on a PCI slot card that is fully compliant with the PCI Standards on a PCI

#### **PCI-E M.2 Slot Installation**



## **Back Panel I/O Connectors**



MNL-2082-QRG-10c