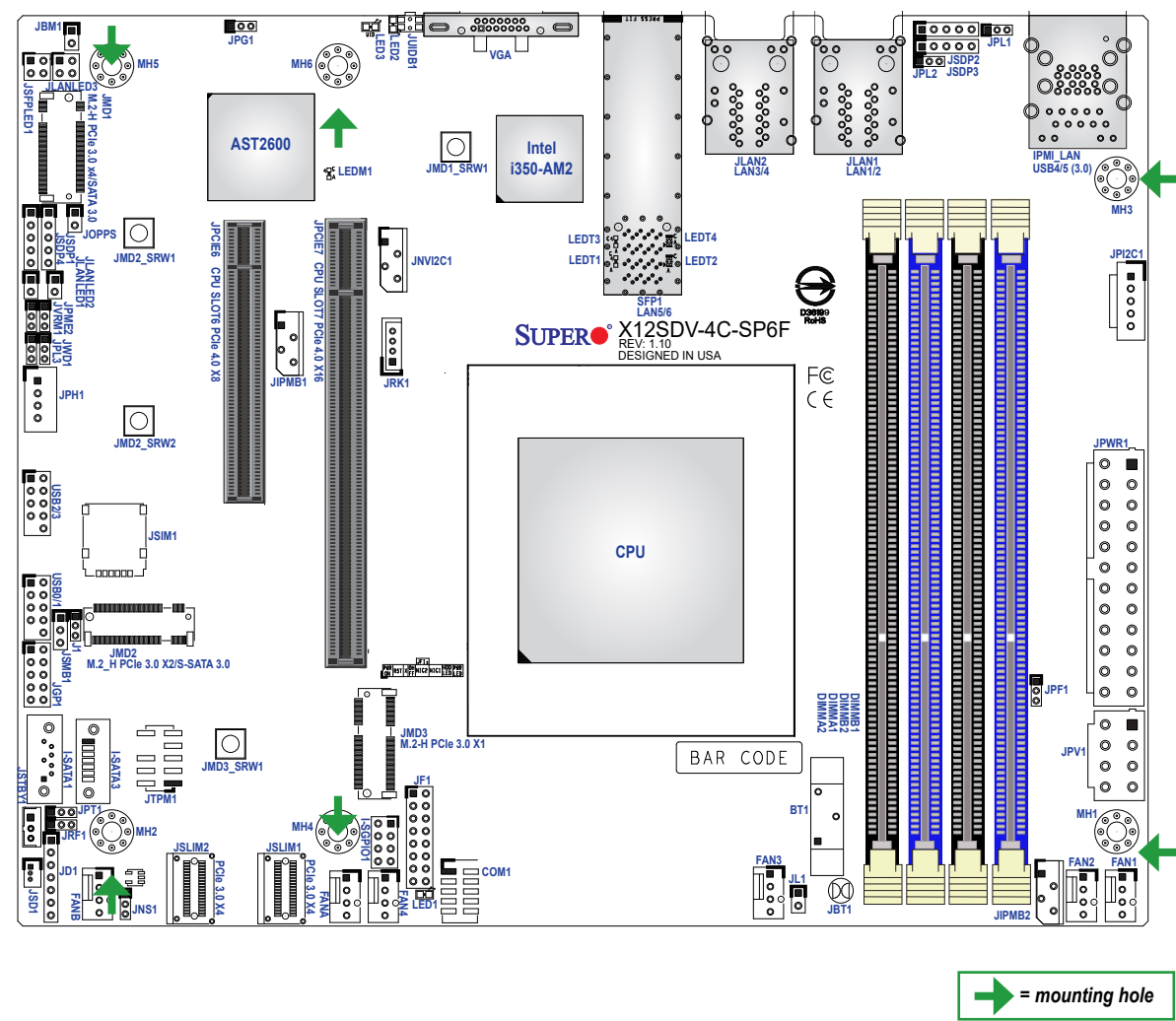
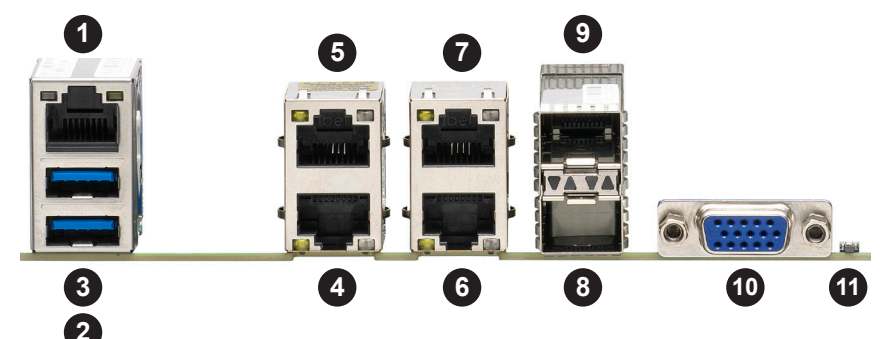




**Motherboard Layout and Features**



**Rear I/O Panel Connectors**



#	Description	#	Description	#	Description
1	IPMI LAN	6	RJ45 LAN3	11	UID Button
2	USB4 (3.0)	7	RJ45 LAN4		
3	USB5 (3.0)	8	SFP28 LAN5		
4	RJ45 LAN1	9	SFP28 LAN6		
5	RJ45 LAN2	10	VGA Port		

**Note 1:** RJ45 LAN3 and RJ45 LAN4 are unavailable in X12SDV-8CE-SP4F.  
**Note 2:** 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.

**Jumpers and Connectors**

Jumpers		
Jumper	Description	Default Setting
J1	SIM Card Detection	Pins 1-2 (High Active)
JBM1	IPMI Shared LAN Enable/Disable	Open (Enabled)
JBT1	CMOS Clear	Open (Normal)
JNS1	SlimSAS Interface Selection	Pins 2-3 (PCIe x4)
JPF1	Power Force On	Pins 1-2 (ATX)
JPG1	VGA Enable/Disable	Pins 1-2 (Enabled)
JPL1, JPL2, JPL3	LAN1, LAN2, LAN3/4 Enable/Disable	Pins 1-2 (Enabled)
JPME2	ME Manufacturing Mode	Pins 1-2 (Normal)
JPT1	Onboard TPM 2.0 Enable/Disable	Pins 1-2 (Enabled)
JWD1	Watchdog Timer	Pins 1-2 (Reset)

Connectors	
Connector	Description
BT1	Onboard Battery
COM1	COM Header
FAN1 – FAN4, FANA, FANB	CPU/System Fan Headers (FAN1: CPU Fan)
IPMI LAN	Dedicated IPMI LAN Port
I-SATA1, I-SATA3	SATA 3.0 Ports (I-SATA1: SATA DOM Power)
I-SGPIO1	Serial Link General Purpose I/O Header
JD1	Power LED/Speaker (Pins 1-3: Power LED, Pins 4-7: Speaker)
JF1	Front Control Panel Header
JGP1	General Purpose I/O Header
JIPMB1, JIPMB2	4-pin BMC External I <sup>2</sup> C Headers
JL1	Chassis Intrusion Header
JLANLED1	LAN1 Activity LED Header
JLANLED2	LAN2 Activity LED Header
JLANLED3	LAN3/4 Activity LED Header
JMD1	M.2 M-Key PCIe 3.0 x4/SATA 3.0 Slot (2280 form factor)
JMD2	M.2 B-Key PCIe 3.0 x2/SATA 3.0/USB 3.0 Slot (2280/3042/3052 form factors)
JMD3	M.2 E-Key PCIe 3.0 x1/USB 2.0 Slot (2230 form factor)
JMD1_SRW1, JMD2_SRW1, JMD2_SRW2, JMD3_SRW1	M.2 Mounting Holes
JNVI2C1	Non-Volatile Memory (NVMe) I <sup>2</sup> C Header
JOPPS	Reserved for One Pulse Per Second
JPH1	4-pin HDD Power Connector
JPI2C1	Power System Management Bus (SMB) I <sup>2</sup> C Header
JPWR1	24-pin ATX Power Connector
JPV1	8-pin 12 V DC Power Connector for CPU (required) or alternate single power input when the 24-pin ATX power is not in use
JRK1	Intel RAID Key Header
JSD1	SATA DOM Power Connector
JSDP1 – JSDP4	Reserved for time synchronization
JSFPLED1	LAN5/6 Activity LED Header
JSIM1	NANO SIM Slot for M.2 B-Key
JSLIM1, JSLIM2	SlimSAS PCIe 3.0 x4 Slots

**Note:** Refer to Chapter 2 of the User Manual for detailed information on jumpers, connectors, and LED indicators.

**Connectors and LED Indicators**

Connectors	
Connector	Description
J SMB1	System Management Bus Header
JSTBY1	Standby Power Header
JTPM1	Trusted Platform Module (TPM)/Port 80 Connector
JUIDB1	Unit Identifier Switch
LAN1/2, LAN3/4	Gigabit Ethernet RJ45 Ports
LAN5/6	25 GbE SFP28 LAN Ports
MH1 – MH6	Motherboard Mounting Holes
SLOT6	PCIe 4.0 x8 Slot (Shared with SLOT7 x8/x8)
SLOT7	PCIe 4.0 x16 Slot
USB0/1, USB2/3	USB 2.0 Headers
USB4/5	Rear I/O USB 3.0 Ports
VGA	VGA Port

LED Indicators		
LED	Description	Status
LED1	Power LED	Solid Green: Power On
LED2	UID LED	Solid Blue: Unit Identified
LED3	Overheat (OH)/Power Fail/Fan Fail LED	Solid Red: Overheat Blinking Red: Power Fail or Fan Fail
LEDM1	BMC Heartbeat LED	Blinking Green: BMC Normal

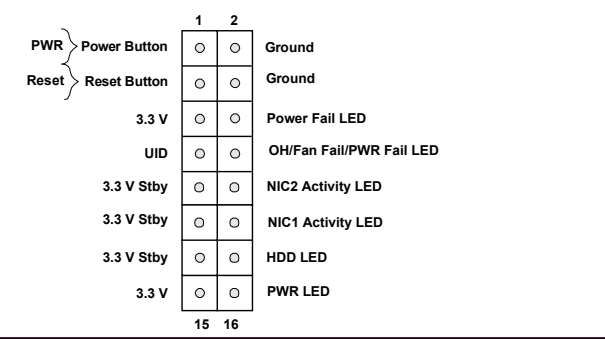
**Processor Support**

The X12SDV-4C/8C/10C-SP6F and X12SDV-8CE-SP4F motherboards support the Intel® Xeon® D-1700 processor series with a thermal design power (TDP) of up to 80 W.  
 The X12SDV-10CR-SP6F motherboard supports the Intel Xeon D-1800 processor series with a TDP of up to 55 W.

**Memory Support**

The X12SDV-4C/8C/10C-SP6F, X12SDV-8CE-SP4F, and X12SDV-10CR-SP6F motherboards support up to 256 GB of DDR4 Non-ECC/ECC RDIMM/UDIMM with speeds of up to 2933 MT/s in four slots. Insert the desired number of DIMMs, starting with DIMMA1, DIMMB1, then DIMMA2, DIMMB2.  
 For optimal performance, use memory modules of the same type and speed.

**Front Control Panel**



**Note:** Refer to Chapter 2 of the User Manual for detailed information on memory support and CPU/motherboard installation instructions.