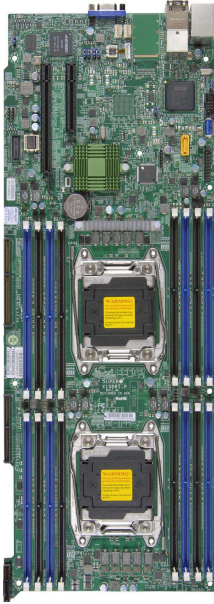


X10DRT-P (For SuperServer Only)



16 DIMMs
2400MHz DDR4
2U Twin2

Key Features

1. Dual socket R3 (LGA 2011) supports Intel® Xeon® processor E5-2600 v3/v4 family; QPI up to 9.6GT/s
2. Intel® C612 chipset
3. Up to 2TB† ECC 3DS LRDIMM , up to DDR4- 2400†MHz; 16 DIMM slots
4. Expansion slots: 1 PCI-E 3.0 x16, 1 PCI-E 3.0 x8 (Proprietary slot), 1 PCI-E 3.0 x8 and 1 PCI-E 3.0 x16 (for Supermicro storage add-on card)
5. Intel® i350-AM2 Dual port GbE LAN
6. 10 SATA3 (6Gbps)
7. Integrated IPMI 2.0 and KVM with Dedicated LAN
8. 2 USB 3.0 ports (2 rear)

Links & Resources

- [Tested Memory List](#)
- [Tested HDD / SSD List](#)
- [Tested AOC List](#)
- [Motherboard Manual](#)
- [Quick Reference Guide](#)
- [Update Your BIOS](#)
- [BMC Firmware](#)
- [Download the Latest Drivers and Utilities](#)
- [Download Driver CD](#)
- [OS Compatibility Optimization](#)

Specifications

Product SKUs		Expansion Slots	
MBD-X10DRT-P	<ul style="list-style-type: none"> X10DRT-P 	PCI-E	<ul style="list-style-type: none"> 1 PCI-E 3.0 x16, 1 PCI-E 3.0 x8, 1 PCI-E 3.0 x8 connector for SMC add-on cards, 1 PCI-E 3.0 x16 connector for SMC add-on cards, (Both CPUs need to be installed for full access to PCI-E slots and onboard controllers. See manual block diagram for details.)
Physical Stats		System BIOS	
Form Factor	<ul style="list-style-type: none"> Proprietary Twin 	BIOS Type	<ul style="list-style-type: none"> 128Mb SPI Flash EEPROM with AMI BIOS
Dimensions	<ul style="list-style-type: none"> 6.8" x 18.86" (17.27cm x 47.9cm) 	BIOS Features	<ul style="list-style-type: none"> Plug and Play (PnP) PCI 2.3 ACPI 1.0 / 2.0 / 3.0 / 4.0 USB Keyboard support SMBIOS 2.7.1 UEFI 2.3.1
Processor/Cache		Management	
CPU	<ul style="list-style-type: none"> Intel® Xeon® processor E5-2600 v3, Intel® Xeon® processor E5-2600 v4. Dual Socket R3 (LGA 2011) supported, CPU TDP support Up to 145W 	Software	<ul style="list-style-type: none"> IPMI2.0, NMI, SuperDoctor® 5, Watchdog
Cores / Cache	<ul style="list-style-type: none"> Up to 22 cores † / Up to 55MB† cache 	System Management Software	<ul style="list-style-type: none"> SPM SUM SSM SuperDoctor 5
Note	<ul style="list-style-type: none"> † BIOS version 2.0 or above is required 	Power Configurations	<ul style="list-style-type: none"> ACPI Power Management Power-on mode for AC power recovery
Note	<ul style="list-style-type: none"> ** Motherboard supports this maximum TDP. Please verify your system can thermally support. 	PC Health Monitoring	
System Memory		Voltage	<ul style="list-style-type: none"> +12V, +3.3V, +5V, 3.3V standby, 6 Phase-switching voltage regulator, Memory Voltages, VBAT
Memory Capacity	<ul style="list-style-type: none"> 2TB 3DS ECC RDIMM, DDR4-2133MHz; Up to 2TB 3DS ECC LRDIMM, in 16 DIMM slots 	FAN	<ul style="list-style-type: none"> 2x 4-pin fan headers (up to 2 fans), 4 fans with tachometer monitoring, Pulse Width Modulated (PWM) fan connectors, Status monitoring for speed control
Memory Type	<ul style="list-style-type: none"> 2400 /2133/1866/1600MHz ECC DDR4 SDRAM 72-bit 	Temperature	<ul style="list-style-type: none"> Monitoring for CPU and chassis environment, CPU thermal trip support, Thermal Control for 4 Fan Connectors (2 fans on backplane), Thermal Monitor 2 (TM2) support, PECI
DIMM Sizes	<ul style="list-style-type: none"> RDIMM: 4GB, 8GB, 16GB, 32GB, 64GB LRDIMM: 32GB, 64GB 3DS LRDIMM: 128GB 	LED	<ul style="list-style-type: none"> CPU / System Overheat LED, Suspend static indicator LED, UID/Remote UID
Memory Voltage	<ul style="list-style-type: none"> 1.2V 	Other Features	<ul style="list-style-type: none"> RoHS
Error Detection	<ul style="list-style-type: none"> Corrects single-bit errors 	Operating Environment	
On-Board Devices		Operating Temperature Range	<ul style="list-style-type: none"> 10°C - 35°C (50°F - 95°F)
Chipset	<ul style="list-style-type: none"> Intel® C612 	Non-Operating Temperature Range	<ul style="list-style-type: none"> -40°C - 70°C (-40°F - 158°F)
SATA	<ul style="list-style-type: none"> Intel® C612 controller for 10 SATA3 (6 Gbps) ports; RAID 0,1,5,10 		
AHCI SATA	<ul style="list-style-type: none"> SATA3 (6Gbps); RAID 0, 1, 5, 10 		
SCU SATA	<ul style="list-style-type: none"> SATA3 (6Gbps); RAID 0, 1, 5, 10 		
IPMI	<ul style="list-style-type: none"> Support for Intelligent Platform Management Interface v.2.0 IPMI 2.0 with virtual media over LAN and KVM-over-LAN support ASPEED AST2400 BMC 		
Network Controllers	<ul style="list-style-type: none"> Dual LAN with Intel® Ethernet Controller I350-AM2 Single LAN with Virtual Machine Device Queues reduce I/O overhead Single LAN with Supports 10Base-T, 100BASE-TX, and 1000BASE-T, RJ45 output Single LAN with 1 Realtek RTL8211E PHY (dedicated IPMI) 		

Graphics	■ Aspeed AST2400 BMC
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Input / Output

SATA	■ 10 SATA3 (6Gbps) port
LAN	■ 2 RJ45 Gigabit Ethernet LAN ports ■ 1 RJ45 Dedicated IPMI LAN port
USB	■ 3 USB 3.0 ports (2 rear + 1 Type A)
Video Output	■ 1 VGA port
TPM	■ 1 TPM Header

Operating Relative Humidity Range	■ 8% - 90% (non-condensing)
Non-Operating Relative Humidity Range	■ 5% - 95% (non-condensing)

Parts List

Parts List (Bulk Package)			
Name	Part Number	Qty	Description
Motherboard	MBD-X10DRT-P	1	X10DRT-P Motherboard

Optional Parts List			
Name	Part Number	Qty	Description
Heat Sink (optional, not included)		--	CPU Heat Sink reference
TPM security module (optional, not included)	AOM-TPM-9655V AOM-TPM-9655H	--	TPM 1.2 module with Infineon 9655, RoHS/REACH, PBF; Vertical or Horizontal depends on the server
TPM security module (optional, not included)	AOM-TPM-9655V-S AOM-TPM-9655H-S	--	TPM 1.2 module with Infineon 9655, RoHS/REACH, PBF; Vertical or Horizontal depends on the server, provision for TXT
TPM security module (optional, not included)	AOM-TPM-9665V AOM-TPM-9665H	--	TPM 2.0 module with Infineon 9665, RoHS/REACH, PBF; Vertical or Horizontal depends on the server
TPM security module (optional, not included)	AOM-TPM-9665V-S AOM-TPM-9665H-S	--	TPM 2.0 module with Infineon 9665, RoHS/REACH, PBF; Vertical or Horizontal depends on the server, provisioned for TXT
SuperDOM		--	Supermicro SATA DOM Solutions [Details]

Chassis (Optimized for X10DRT-P)

Embedded Compact	1U	2U	3U	Mid/Mini-Tower	4U/Tower
		<ul style="list-style-type: none"> ● SC827HQ+-R2K02B ● SC827HQ+-R2K02B ● SC217HQ+-R2K02B 1U Heatsink:SNK-P0047PSM (Rear) 1U Heatsink:SNK-P0047PSM (Front) 1U Heatsink:SNK-P0057PS (Rear) 1U Heatsink:SNK-P0057PS (Front) 2U: ● SC827HD+-R1K28B 2U Heatsink:SNK-P0048PS 			

● = Most optimized Chassis for SuperServer Configuration
 Blue color = Compatible
 Green color = Global SKU & Compatible
 Red dot & green color = Optimized + Global SKU

Server (Optimized for X10DRT-P)

Server Name
<u>SYS-6028TP-HTR</u>
<u>SYS-2028TP-HC1R</u>
<u>SYS-2028TP-HC0R</u>
<u>SYS-2028TP-HTR</u>
<u>SYS-2028TP-DC1R</u>
<u>SYS-2028TP-DC0R</u>
<u>SYS-2028TP-DTR</u>
<u>SYS-6028TP-HC1R</u>
<u>SYS-6028TP-HC0R</u>
<u>SYS-2028TP-DNCR</u>
<u>SYS-6028TP-DNCR</u>
<u>SYS-2028TP-DECR</u>
<u>SYS-1028TP-DTR</u>
<u>SYS-1028TP-DC0R</u>
<u>SYS-1028TP-DC1R</u>