P13DRE — Intel Whitley Dual High-Performance Server Motherboard

The P13DRE is a server motherboard supporting Intel® Xeon® 3rd Generation Scalable Processors, featuring high performance, high reliability, and excellent heat dissipation. It uses the Intel® C621A high-performance server chipset, significantly enhancing device scalability and performance. This server motherboard also offers ODM customization services for clients with personalized needs, making it the top choice for industry users to build a refined IT platform.
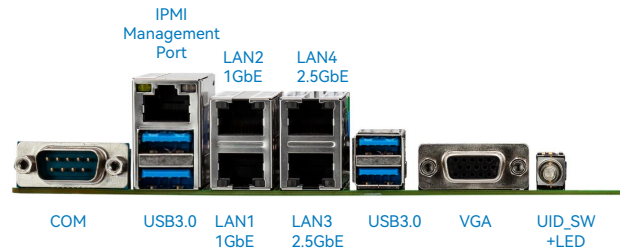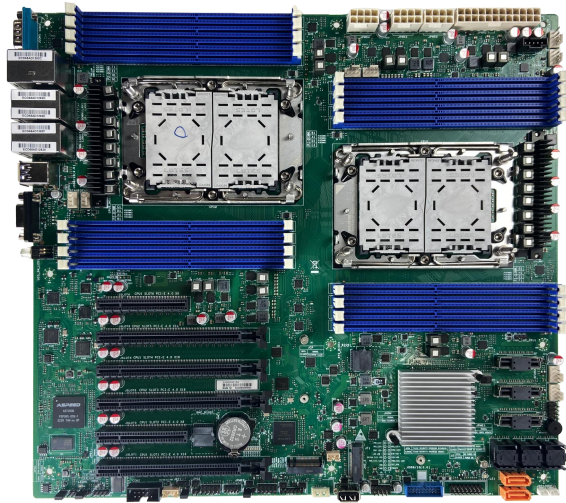
- Intel® high-performance server C621A chipset, it supports Intel® Xeon® 3rd Generation Scalable Processors
- Provides 16 DDR4 RDIMM memory slots (8 channels/CPU).
- Supports DDR4 ECC RDIMM; maximum supported frequency is 3200MHz.
- Maximum supported capacity is 4TB, offering higher density and larger capacity.
- Supports 4 PCI E 4.0 x16 and 2 PCI E 4.0 x8 expansion slots for flexible expansion.
- Supports 3 MCIO x8 interfaces for flexible expansion.
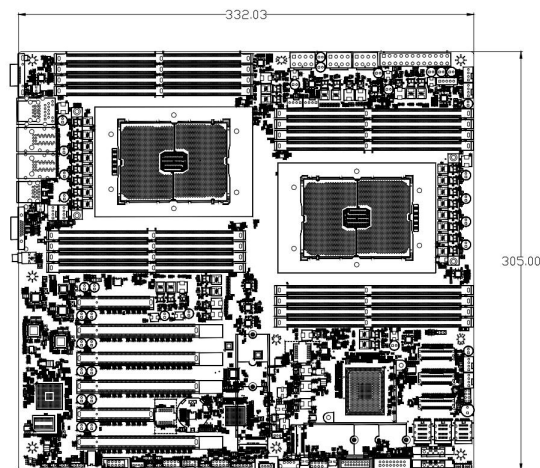- Supports 2 M.2 PCI-E 4.0 x4 (2242/2280), supports Intel VROC NVME raid KEY.

01 Specifications

Category	Item	Details
System Control	CPU	2 Socket P+ (LGA4189), supports Intel® Xeon® 3rd Generation Scalable Processors. Whitley: (Ice Lake), TDP 270W
	Bridge Chip	C621A Chipset
Memory	Type	16 memory slots (8 channels/CPU) Supports 3200/2933/2666MHz ECC DDR4 RDIMM
	Memory Capacity	Maximum support for 4TB 3DS RDIMM Maximum support for 4TB Intel® Optane™ Persistent Memory PMem 200 Series (Barlow Pass)
	Memory Size	RDIMM: 16GB, 32GB, 64GB, 128GB, 256GB
Network	Business Network Ports	2 dual-layer RJ45 ports, 2 Gigabit networks, 2 2.5GbE networks (not supported by SKU2), supports 10/100/1000/2500Mbps
	IPMI Management Interface	1 standard RJ45 port, supports 10/100/1000Mbps
Storage	SATA	Supports 2 SATA3 interfaces, 3 MINI SAS HD interfaces, supports RAID 0,1,5,10
	M.2	2 x M.2 interfaces, supports 2242/2280 (PCI-E 4.0 x4)
Expansion Slots	PCIE	4 standard PCIe 4.0 x16 (x16 slots); 2 standard PCIe 4.0 x8 (x8 slots); 3 MCIO interfaces (PCIe 4.0 x8)
I/O Interface	Backplane I/O Interface	4 x USB 3.0 ports, 1 x VGA port, 1 x COM port
		1 x UID switch (with LED), 4 x RJ-45 LAN network ports, 1 x RJ-45 IPMI management port
	Onboard I/O	1 x VROC header; 1 x TPM header, standard ATX24+8+8+8 pin, 1 x front VGA header
		2 x USB 3.0 internal headers, 2 x USB 2.0 internal headers, 1 x USB 2.0 Type A
		8 x 4-pin fan headers, 1 x serial port header, 1 x chassis intrusion detection header
Display	Chipset	ASPEED AST2500 BMC
	Interface	1 x VGA
Dimensions	Dimensions	332.03mm x 305mm
Temperature and Humidity Requirements	Operating Temperature	10℃ to 35℃
	Operating Temperature	-40℃ to 70℃
	Operating Humidity	8% to 90% (non-condensing)
	Storage Humidity	5% to 95% (non-condensing)

02 Product view

IPMI
Management
Port

LAN2
1GbE

LAN4
2.5GbE

COM · USB3.0 · LAN1 1GbE · LAN3 2.5GbE · USB3.0 · VGA · UID_SW +LED

03 Dimensions

332.03

305.00

04 Product Selection

Model	Product Configuration
P13DRE–SKU1	Neutral, supports 2 Intel® Xeon® 3rd Generation Scalable Processors, C621A, 16*DIMM, 2*1GbE+2*2.5GbE RJ45, IPMI
P13DRE–SKU2	Neutral, supports 2 Intel® Xeon® 3rd Generation Scalable Processors, C621A, 16*DIMM, 2*1GbE, IPMI