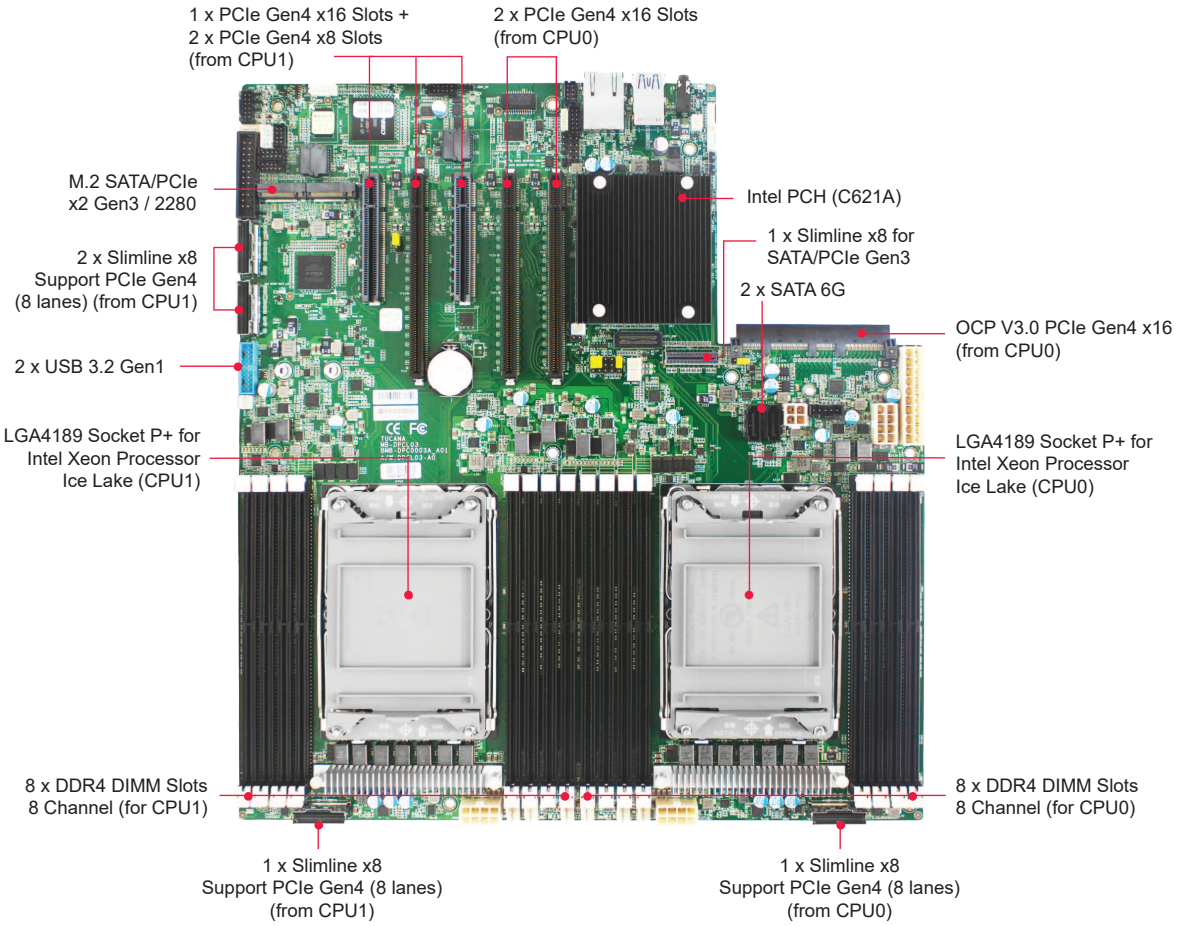
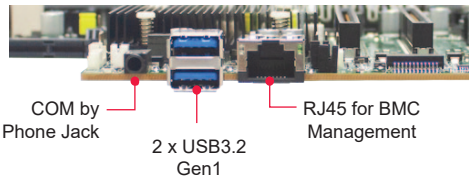
# TUCANA Intel Whitley Server Board




## I/O View




## Dimensions

mm : 304.8 x 330.2 / inches : 12 x 13

The Tucana server board offers the latest Xeon® Scalable Processors technology solutions with compelling performance and provides premium power efficiency, which is optimized for efficient performance platforms (storage, security and communications infrastructure)

By implementing Intel® Xeon® Scalable Processors, fully integrated microarchitecture supports up to 3 x 16 lanes, 2 x8 lanes, 4 slimline x8 of PCIe Gen4 and one OCP 3.0 PCIe Gen4, providing eight channels per CPU with total sixteen DIMM slots deployment which can support up to DDR4 3200/2933MHz, Tucana server board can meet both cost efficiency and performance requirement for lots of applications.

Featured with ground breaking technologies including Intel® Next Generation Microarchitecture and Instruction Set (AVX-512, VMD), Speed Shift Technology, UPI link speeds up to 11.2GT/s, the Tucana server board enable next generation server solutions with an incredible leap in performance.

## Features

- Supports 3rd Gen Intel® Xeon® Scalable Processors for highest server performance and improved power efficiency
- Supports 16 DDR4 DIMM slots for maximum memory performance
- Supports up to 3 x 16 lanes, 2 x8 lanes, 4 x slimline x8, 1 x OCP 3.0 of PCIe Gen4
- Onboard Baseboard Management Controller for system management and IPMI control
- Embedded components for 5+ year long life
- Rackmount Technology Extension (RTX) form factor utilizes full internal chassis volume for optimum I/O configurations

## Specifications

| | | |
|---|---|---|
| **System** | Processor Support | 3rd Gen Intel® Xeon® Scalable Processors (Ice Lake CPU) |
| | CPU TDP | 270W |
| | UPI Speeds | 10.4 / 11.2 GT/s |
| | Socket Type | Socket P+ (LGA-4189) |
| | System Memory | • 8 x memory channels per CPU (1DPC)<br>• 16 x DIMM slots support:<br>DDR4 3200/2933MHz RDIMM/LRDIMM<br>- up to 512GB RDIMM SRx4 (16Gb)<br>- up to 1024GB RDIMM DRx4 (16Gb)<br>- up to 4096GB RDIMM 3DS 8Rx4 (16Gb)<br>- up to 2048GB LRDIMM QRx4 (16Gb)<br>- up to 4096GB LRDIMM 3DS 8Rx4 (16Gb)<br>• Intel® Optane™ DC Persistent Memory (Barlow Pass) support |
| | Expansion Slots | • CPU0: 2 x PCIe Gen4 x16 slots +<br>1 x OCP V3.0 + 1 x Slimline x8<br>• CPU1: 1 x PCIe Gen4 x16 slot<br>2 x PCIe Gen4 x8<br>3 x Slimline x8 |
| **System BIOS** | BIOS Type | AMI UEFI BIOS |
| | BIOS Features | • ACPI<br>• PXE<br>• AC loss recovery<br>• IPMI KCS interface<br>• SMBIOS<br>• Serial console redirection<br>• SRIOV<br>• TPM<br>• PCIe hotplug |
| **On-board Devices** | SATA | Lewisburg PCH on-chip solution supports 12 x SATA 6.0 Gb/s<br>• 2 x SATA 7-pin<br>• 8 x SATA by Slimline + 2 x SATA by M.2 (supports both SATA/PCIe by PCH HSIO) |

| | | |
|---|---|---|
| **On-board Devices** | BMC | Aspeed AST2500 Advanced PCIe Graphics & Remote Management Processor<br>• Baseboard Management Controller<br>• Intelligent Platform Interface 2.0 (IPMI 2.0)<br>• iKVM, Media Redirection, IPMI over LAN, Serial over LAN<br>• SMASH support<br>• HTML5<br>• Redfish |
| | Network Controller | • Realtek RTL8211E GbE for BMC dedicated management port (NCSI shared NIC - reserved for OCP & I210 by jumper setting)<br>• Intel® I210 GbE for BMC shared NIC management port by onboard connector (NCSI shared NIC - reserved for OCP V3.0) |
| | Graphics | Aspeed AST2500 Advanced PCIe Graphics & Remote Management Processor<br>• PCIe VGA/2D Controller<br>• 1920x1200@60Hz 32bpp |
| **Input/Output** | SATA | Lewisburg PCH on-chip solution supports 12 x SATA 6.0 Gb/s<br>• 2 x SATA 7-pin<br>• 8 x SATA by Slimline + 2 x SATA by M.2 (supports both SATA/PCIe by PCH HSIO) |
| | LAN | • 1 x GbE RJ45 dedicated to BMC management |
| | USB | • 2 x USB3.2 double-stack Type-A connectors<br>• 2 x USB pin headers support USB3.2/2.0 |
| | Video Output | • 1 x internal VGA pin-header |
| | Serial Port | • 1 x external COM port<br>• 1 x COM2 box header<br>• 1 x COM1 box header share with rear I/O phone jack |
| | Others | • 1 x TPM 2.0 onboard |

## Ordering Information

| SKU Number | Description |
|---|---|
| BMB2DPC0003A | PCBA/MOTHERBOARD/MB-DPCL03 (TUCANA)/VER:B04 (MP) ICE LAKE-SP X2/LEWISBURG-1/OCP3.0/GBE X1/PHY X1/270W |