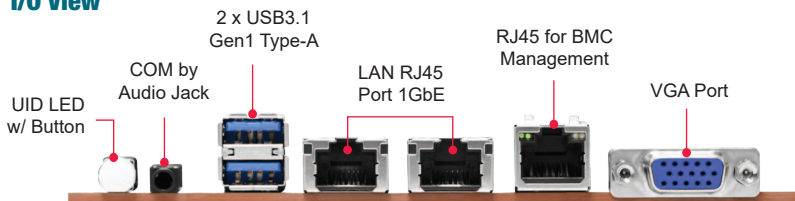


## I/O View



## Dimensions

mm : 304.8 x 332.7 / inches : 12 x 13

Vega supports dual 4th/5th Generation Intel® Xeon® Scalable Processors with 3 UPIs (up to 20GTs), per CPU cores up to 60, and TDP up to 350W. With built-in Intel® C741, it supports up to 4TB DDR5 3DS RDIMM with 16 memory slots and memory speeds up to 5600MHz.

The high speed expansion I/O includes 5 x 16 PCIe5.0/CXL1.1 slots, 1 x 8 PCIe5.0 slot, 3 MCIO x8 PCIe5.0, 2 M.2 2280 PCIe4.0 x4, 2 SATA3.0 7-pin connectors (6 Gb/s), and 1 slimline connector (up to 8 SATA). Security features include TPM 2.0 and TCM 2.0 interface for extension.

## Features

- Supports 4th/5th Gen Intel® Xeon® Scalable Processors for highest every performance and improved power efficiency
- Supports 16DDR5 DIMM slots for maximum memory performance
- Supports Compute Express Link (CXL1.1)
- Six PCIe slots can support three FHFL PCIe5.0 x16 add-in cards
- Supports three MCIO x8, total 24 PCIe5.0 lanes

## Specifications

<b>System</b>	Processor Support	Dual Intel® Sapphire Rapids / Emerald Rapids CPU	
	CPU TDP	350W	
	UPI Speeds	16/20Gts	
	Socket Type	Socket E1 (LGA-4677-X)	
	System Memory	<ul style="list-style-type: none"> <li>• DDR5 5600/4800MHz RDIMM (1DPC)</li> <li>• Total 16 memory slots; 8 slots per CPU (1DPC)</li> <li>• Support up to 4TB (3DS RDIMM)</li> </ul>	
<b>Expansion Slots</b>	Total support 112 lanes of PCIe5.0 • PCIe slots (up to 5 x16 CXL1.1 devices) - 3 x16 PCIe5.0/CXL1.1 (CPU0) - 2 x16 PCIe5.0/CXL1.1 (CPU1) - 1 x8 PCIe5.0 (CPU1) • MCIO - 3 MCIO x8 PCIe5.0 • M.2 - 2 M.2 2280-D5-M PCIe Gen4 x4		
	<b>BIOS Type</b>	AMI UEFI BIOS	
<b>System BIOS</b>	<b>BIOS Features</b>	<ul style="list-style-type: none"> <li>• ACPI</li> <li>• PXE</li> <li>• WOL</li> <li>• AC loss recovery</li> <li>• IPMI 2.0 KCS mode interface</li> </ul>	<ul style="list-style-type: none"> <li>• SRIOV</li> <li>• SMBIOS</li> <li>• TPM</li> <li>• Serial console redirection</li> <li>• PCIe hotplug</li> </ul>
	<b>On-board Devices</b>	SATA	Emmitsburg PCH on-chip solution • 2 x SATA3.0 (6 Gb/s) 7-pin connectors • 1 x Slimline connector (up to 8 SATA ports)
	BMC	ASPEED AST2600	

<b>On-board Devices</b>	Network Controller	<ul style="list-style-type: none"> <li>• Realtek RTL8211FS 1GbE for BMC dedicated management port</li> <li>• Broadcom BCM5720 dual port 1GbE (NCSI for share NIC)</li> </ul>
	Graphics	<ul style="list-style-type: none"> <li>• Integrated VGA support by ASPEED AST2600</li> <li>• Resolution up to 1920x1200 @60Hz 32bpp</li> </ul>
	Additional Information	TPM 2.0 - NUVOTON NPCT760AABYX
<b>Input/Output</b>	SATA	<ul style="list-style-type: none"> <li>• 2 x SATA3.0 12Gb/s (by 7-pin)</li> <li>• 1 x Slimline connector supports 8 x SATA</li> </ul>
	LAN	<ul style="list-style-type: none"> <li>• 1 x RJ45 GbE connector for BMC dedicate management port</li> <li>• 2 x RJ45 1GbE connectors</li> </ul>
	USB	<ul style="list-style-type: none"> <li>• USB3</li> <li>- 2 x USB3.1 Gen1 double stack Type-A connectors at rear I/O</li> <li>- 1 x USB3 pin header supports two USB3.1 Gen1</li> <li>• USB2</li> <li>- 2 x USB2.0 pin headers support two USB2.0</li> </ul>
	VGA	1 x DB-15 VGA connector
	Serial Port	1 x COM connector (Audio Jack)
	Others	1 x external UID/switch button
	Additional Information	Security: <ul style="list-style-type: none"> <li>• TCM 2.0 interface for extension</li> <li>• TPM 2.0 onboard (Default: N/A; optional by SKU)</li> </ul>

VEGA

## Ordering Information

MB SKU	Order Info	Description
Vega	BMB2DPR0001A	PCBA/MOTHER BOARD/MB-DPSR02/VEGA/EGS/EATX/C01 INTEL CPU X2/MEMORY X16/PCIE X16 SLOT X5/PCIE X8 SLOT X1/M.2 SLOT X2/MCIO X8 X3/SLIMLINE X8 X1/TPM
Vega	M22-1717-006	VEGA MB (BMB2DPR0001A) (MB-DPSK02) with IOS (M60-1717-001), bulk packing with 10 pcs MB & IOS (10 pcs in packing)
Vega	M22-1717-007	VEGA MB (BMB2DPR0001A) (MB-DPSK02) with IOS (M60-1717-001), single packing