

ISB-E701-GNRWS

- Intel® Granite Rapids Workstation
- SSI-EEB Industrial Server Board
- 8 x DDR5 RDIMM/3DS RDIMM
- 7 x PCIe5.0 x16 Slots*
- 2 x PCIe5.0 x4 M.2 Slots
- 2 x PCIe5.0 x8 MCIO Connectors
- 2 x Slimline SAS Connectors, Support Additional 8 x SATA3.0 or 2 x PCIe4.0 x4

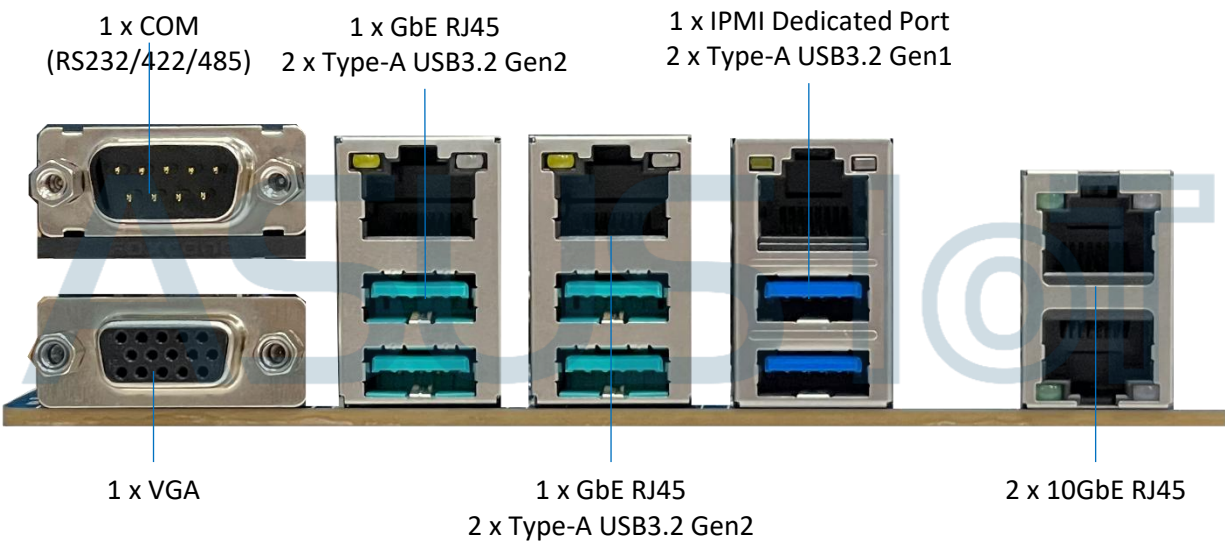


Specification

Processor System	CPU		Granite Rapids Workstation
			Single Socket E2, LGA4710-2
			Max. 350W TDP (Mainstream 250W, Expert1s 350W)
Memory	Chipset		W890
	Technology		DDR5 RDIMM (2DPC) / 3DS RDIMM, Up to 5200MT/s (2DPC)
	Max.		256GB / 2TB
Display	Socket		8 Slots
	VGA		1 (AST2600)
Expansion Slot	PCIe	Total PCIe Slots	7 (Slot #1、#2 will be activated by Expert1s SKU processor)
		PCIe Slot 1*	1 x PCIe 5.0 x16 Slot (x16 Speed, Activated by Expert1s)
		PCIe Slot 2*	1 x PCIe 5.0 x16 Slot (x16 Speed, Activated by Expert1s)
		PCIe Slot 3	1 x PCIe 5.0 x16 Slot (x16 Speed, Mainstream)
		PCIe Slot 4	1 x PCIe 5.0 x16 Slot (x8 Speed, Mainstream)
		PCIe Slot 5	1 x PCIe 5.0 x16 Slot (x16 Speed, Mainstream)
		PCIe Slot 6	1 x PCIe 5.0 x16 Slot (x16 Speed, Mainstream)
		PCIe Slot 7	1 x PCIe 5.0 x16 Slot (x16 Speed, Mainstream) (Dedicated PCIe holder)
	MCIO		2 x PCIe 5.0 x8 (2 x activated by Expert1s)
	M.2		2 x M.2 M-key, Type 22110/2280 (PCIe 5.0 x4 from CPU, Support Intel® VROC*) <i>Note1: Intel® VROC offers basic functionality included with the Platform Controller Hub (PCH) with the option to add three RAID enabled feature sets (Standard, Premium, RAID1 Only).</i> <i>Note2: In scenarios with higher ambient temperatures, we suggest using a wide-temperature M.2 module.</i>
Ethernet	Controller		1 x Intel® E610-XAT2 2 x Intel® I210-AT
			1 x Realtek RTL8211F (RGMII from AST2600, for IPMI)
	Connector		5 x RJ-45 (2 x 10GbE, 1 x GbE, 1 x GbE w/ NC-SI, 1 x IPMI)
Storage	SATA / PCIe		2x Right Angle Slimline SAS connector, Support 8 x SATA3.0, or 2 x PCIe 4.0 x4 device
Rear I/O	VGA		1 (AST2600)
	Serial Port		1 (DB9, RS232/422/485)
	USB3.2 Gen2		4 (Type-A, Support Wake on USB)
	USB3.2 Gen1		2 (Type-A, Support Wake on USB)
	Ethernet		2 x 10GbE RJ45, 2 x GbE RJ45, 1 x IPMI RJ45

Internal Connector	USB3.2 Gen1	2 x Header Support Additional total 4 x USB3.2 Gen1 Ports	
	USB2.0	2 x Vertical Type-A USB2.0 Connector	
	COM	1 x Header (RS232)	
	Audio	Line-In & Line-Out header (Codec ALC897)	
	CPU Fan/ Chassis Fan	8 x 4-pin (2.0A)	
	System Panel	1 x Header	
	Chassis Intrusion	1 x Header	
	Clear CMOS	1 x Header	
	Debug Code Display	1	
	GPIO	1 x Header (8 Bit)	
	SMBus	1 x Header	
	VROC	1 x Header	
	Power connector	1 x 24-pin SSI power connector	
		4 x 8-pin SSI 12V power connector (2 for CPU, 2 for PCIe Card)	
Security	TPM	1 x TPM (On-board)	
Watchdog Timer	H/W	Yes	
Power Type	Power Type	AT mode/ ATX mode	
Management	Out of Band Management	Yes (AST2600)	
OS & Software Support	Microsoft Windows	Windows 11 Enterprise	
	Linux	Ubuntu 24.04.3 LTS	
	BMC	☒ HW Monitor	☒ GPIO
		☒ Watch Dog Timer	☒ Fan Control
	User Interfaces	☒ IPMI	☒ Redhat
Environment	Operating Temperature	0~60° C	
	Non-Operating Temperature	-40~85° C	
	Relative Humidity	Operational humidity: 40° C@10%~95%	
Mechanical	Dimensions	SSI-EEB (12" x 13")	
Certification	EMC (CLASS B)	CE, FCC, BSMI, VCCI, RCM	
	Safety	CE-LVD	

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Block Diagram

