



**Servers
Workstations
Storage Equipment
Enterprise Appliance**

1U Economic Single CPU Servers



1U Standard Dual CPU Servers

Storage Server Series

Heavy Process Server Series

Specifications		RS30-G9	RS30-G10	RS50-G10	RS165-G10	RS172-G11	RS175-G11	RS272-G11	RS275-G11
Processor Support	Socket	1 x Socket LGA1151			2 x Socket P (LGA 3647)	2 x Socket P+ (LGA 4189)	2 x Socket P+ (LGA 4677)	2 x Socket P+ (LGA 4189)	2 x Socket P+ (LGA 4677)
	Family	Intel® E3-1200 or Core-i3			Intel® Xeon® Scalable Processor Family			Intel® Xeon® Scalable Processor Family	
	Generation	Xeon® E3-1200 v5 or v6			Xeon® 1st and 2nd Gen			3rd Generation	
	UPI	Xeon® E2100/E2200			UPI 10.4 GT/s			UPI 11.2 GT/s	
Core Logic and Mainboard		Intel® C232 Chipset	Intel® C242 Chipset	Intel® C252 Chipset	Intel® C621 PCH Chipset	Intel® C621A PCH Chipset	Intel® C741A PCH Chipset	Intel® C621A PCH Chipset	Intel® C741A PCH Chipset
		Powered by ASUS Single Xeon Server Series Mainboard			Powered by ASUS Dual Xeon Server Series Mainboard			Powered by ASUS Single Xeon Server Series Mainboard	
Memory	Total Slots	4 (2-Channels)			16 (6-Channels per CPU)	32 (8-Channels per CPU)	32 (8-Channels per CPU)	32 (8-Channels per CPU, 16 DIMM per CPU)	
	Capacity (Max)	64GB UDIMM	128GB UDIMM		512GB RDIMM, 3.5TB LR 3DS	2.0TB RDIMM, 8.0TB LRDIMM/3DS		Maximum 8.0TB LRDIMM/3DS RAM Support, 4.0TB RDIMM	
	Memory Type	DDR4 2133Mhz ~ 2400Mhz		DDR4 2400Mhz ~ 2666Mhz	DDR4 2666Mhz ~ 2933Mhz	DDR4 2933Mhz ~ 3200Mhz		DDR5 5600/5200Mhz RDIMM	DDR5 5600/5200Mhz RDIMM
	Frequency	UDIMM, ECC and non-ECC		UDIMM, ECC and non-ECC	RDIMM, LR, 3DS, DCPMM	RDIMM, LR, 3DS, DCPMM		RDIMM, LR, 3DS, DCPMM	DDR4 3200/2933Mhz LR/3DS
	Memory Module Size	4GB ~ 16GB UDIMM		4GB ~ 32GB UDIMM	8GB~64GB RDIMM, 64GB~128GB LRDIMM/3DS or 512GB DCPMM Memory Modules			8GB~64GB RDIMM, 64GB~128GB LRDIMM/3DS or 512GB	
Expansion Slots	Total PCI-E/OCP Slots	1		2	Up to 3		Up to 4		Up to 9
	Slot Types	1 x PCI-E 3.0 x16		1 x PCI-E 3.0 x16 1 x PCI-E 3.0 x8	1 x PCIe 3.0 x16 FH, HL 1 x PCIe 3.0 x8 FH, HL 1 x OCP 2.0 Mezzanine G3	1 x PCIe 4.0 x16 FH, FL 1 x PCIe 4.0 x16 FH, FL 1 x PCIe 4.0 x8 or x16 LP 1 x OCP 3.0 Mezzanine G4	2 x PCIe 5.0 x16 (or 2x8) 1 x PCIe 5.0 x16, LP 1 x PCIe 4.0 x8, LP 1 x OCP 3.0 Mezzanine G5	1 x PCIe v4.0 x16 2 x PCIe v4.0 x16 or 4 x8 1 x PCIe v4.0 x16 or 2 x8 1 x PCIe v4.0 x8 1 x PCIe v4.0 x8 or x16 1 x OCP 3.0 Slot v4.0	3 x PCIe v5.0 x16 (x16) or 6 x PCIe v5.0 x16 (x8) 1 x PCIe v5.0 x16 (x16) 1 x PCIe v5.0 x16 (x16 Link) 1 x OCP 3.0 v5.0
Storage & RAID Controller	SATA Controller	SATA3 6.0Gb/s ports 2 x M.2 connector (2280/2260/2242) PCIe® Gen3/4/5 x4 link Intel® Rapid Storage Technology Enterprise (RSTe) (Support Software RAID 0, 1, 5, 10)			SATA3 6.0Gb/s ports (12Gb/s with HW RAID Card) 2 x M.2 connector (2280/2260/2242) PCIe® Gen3/4/5 x4 link Intel® Rapid Storage Technology Enterprise (RSTe) (Support Software RAID 0, 1, 5, 10)		SATA3 ports (12Gb/s with HW RAID Card) 2 x M.2 connector (2280/2260/2242) PCIe® v4.0 Link Intel® Rapid Storage Technology Enterprise (RSTe) (Support Software RAID 0, 1, 5, 10)		
	SAS/NVMe Controller	No SAS/NVMe Support		Optional Kits: 12.0Gb/s HW SAS/NVMe RAID Card 0/1/10/5/50/60	Optional Kits: 12.0Gb/s HW SAS RAID card (Raid Support 0,1,10, 5, 50, 60) 24.0Gb/s HW SAS/NVMe RAID Card (Raid Support 0,1,10, 5, 50, 60)		Optional Kits: SAS/NVMe 12.0Gb/s HW RAID (Level Support: 0,1,10) SAS 12.0Gb/s HW RAID (Level Support: 0,1,10,5,50,6,60)		
Storage Bays		2 x Internal 2.5"/3.5" Bays 2 x M.2 (2280/2260/2242)		4 x Hotswap 2.5"/3.5" HDD 2 x M.2 (2280/2260/2242)	4 x Hotswap Front 3.5" HDD Bays (Supports 2.5"/3.5" SAS/SATA) or 8/12 x 2.5" 2 x Internal M.2 connector (2280/2260/2242) (PCIe® Gen3/4/5 x4 link)		12 x 3.5" or 24 x 2.5" Hotswap HDD Bays (SAS/SATA/NVMe) 2 x Internal M.2 connector (2280/2260/2242) PCIe® v4.0		
Auxiliary Storage	Optical Drive	Optional Slimtype DVD/DVDRW Drive			Optional Slimtype DVD/DVDRW Drive		No ODD		
Networking	Standard LAN	2 x Intel® I210AT 1.0Gb/s	4 x Intel® I210AT 1.0Gb/s		2 x Intel® X722 1.0Gb/s	2 x Intel X710-AT2 10.0Gb/s	2 x Intel X710-AT2 10.0Gb/s	2 x Intel X710-AT2 10.0Gb/s Ethernet LAN Ports	
	Optional LAN	Additional 2 or 4 or Ethernet Ports: 1.0Gb/s, 10.0Gb/s, 25.0Gb/s, 100.0Gb/s			Additional 2 or 4 or 8 Ethernet Ports: 1.0Gb/s, 10.0Gb/s, 25.0Gb/s, 100.0Gb/s			2 or 4 or Ethernet: 1.0Gb/s, 10Gb/s, 25Gb/s, 100Gb/s	
	Management Port	1 x 1.0Gb/s RJ45 Port for Remote Management and iKVM Access			1 x 1.0Gb/s RJ45 Port for Remote Management and iKVM Access			1 x Port for Remote Management and iKVM Access	
Graphics		Aspeed AST2400 w/ 32MB	Aspeed AST2500 w/ 32MB		Aspeed AST2500 w/ 64MB	Aspeed AST2600 w/ 64MB VRAM		Aspeed AST2600 with 64MB VRAM	
Front I/O Ports		2 x USB 3.0 ports, 1 x VGA port			2 x USB 3.0 ports 1 x VGA port	2 x USB 3.2 ports		2 x USB 3.2 ports	
Rear I/O Ports		2 x USB 3.0 - 2 x USB 2.0 1 x VGA port 2 x RJ-45 GB LAN 1 x Mng. 1 x PS/2 Keyboard/Mouse	2 x USB 3.0 - 2 x USB 3.1 1 x VGA port 4 x RJ-45 GB LAN 1 x Management Port		2 x USB 3.0 ports 1 x VGA port 2 x RJ-45 Gigabit LAN ports 1 x RJ-45 Management port	2 x USB 3.2 ports 1 x VGA port 2/4 x RJ-45 GB/10G LAN 1 x RJ-45 Management port		2 x USB 3.2 ports, 1 x VGA port 2/4 x RJ-45 Gigabit/10G LAN ports 1 x RJ-45 Management port	
OS Support		Windows® Server 2016 RedHat® Enterprise Linux SuSE® Linux Enterprise CentOS Citrix XenServer	Windows® Server 2016, 2019 RedHat® Enterprise Linux SuSE® Linux Enterprise CentOS Citrix XenServer VMWare			Windows® Server 2016, 2019, 2022 Windows® Server 2012, 2012 R2 Windows® 10, 11 64-bit Windows® 8, 8.1 64-bit RedHat® Enterprise Linux , SuSE® Linux Enterprise Server, CentOS, Ubuntu VMware, Citrix XenServer, Microsoft HyperV		Windows® Server 2016, 2019, 2022 Windows® Server 2012, 2012 R2 Windows® 11, 10 64-bit, Windows® 8, 8.1 64-bit RedHat® Enterprise Linux , SuSE® Linux Enterprise, CentOS, Ubuntu, VMware, Citrix XenServer	
Remote Management	Software	Remote Control Center Enterprise (Optional)			Remote Control Center Enterprise (Optional)		Remote Control Center Enterprise (Optional)		
	Remote Access	Onboard Module for KVM-over-Internet			Onboard Module for KVM-over-Internet		iKVM Module for KVM-over-Internet		
Regulatory Compliance		Iran Standard, Iran CRA, CE, Energy Star			Iran Standard, Iran CRA, CE, Energy Star		Iran Standard, Iran CRA, CE, Energy Star		
Dimensions		380mm x 430mm x 44mm		497mm x 439.5mm x 44mm	616mm x 444mm x 44mm	842mm x 449mm x 44mm		840mm x 447mm x 88mm (2U)	
Net Weight	(CPU, RAM, HDD not Included)	5.5 kg	7.5 kg	11.0 kg	11.0 kg	13.0 kg	20.0 kg	29 kg	34 kg
Gross Weight		9.5 kg	11.5 kg	17.0 kg	17.0 kg	19.0 kg	26.0 kg	35 kg	37 kg
Power Supply	Power Options	Single 250W 80+ Bronze	Single 350W 80+ Bronze	Single 350W 80+ Bronze 1+1 Redundant 550W Gold	Single or 1+1 Redundant 550W or 770W 80+ Platinum	1+1 Redundant 800W/1200W 80+ Platinum	1+1 Redundant 1200/1600W 80+ Platinum/Titanium	1+1 Redundant 1600W/2000W/2600W 80+ Platinum or Titanium	
	Rating	Rating: 100-127/200-240 VAC, 10A/5A, 50-60Hz, Class I			Rating: 100-127/200-240 VAC, 10A/5A, 50-60Hz, Class I		Rating: 100-127/200-240 VAC, 10A/5A, 50-60Hz, Class I		
Environment		Temperatures: Operation 10°C ~ 35°C , non-Operation: -40°C ~ 70°C , Non operation Humidity: 20% ~ 90% (Non Condensing)							



RINO Server and Workstation Specifications v5.0, 2025
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**Servers
Workstations
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Enterprise Appliance**

GPU Server Series



Tower Server Series



Single and Dual CPU Workstations



Specifications		RG284-G11		RG488-G11		WS50-G10		WS50-G11		WS65-G10		WT50-G10		WT65-G10		WT75-G11	
Processor Support	Socket	2 x Socket P+ (LGA 4189)		2 x Socket P+ (LGA 4677)		1 x Socket LGA1151				2 x Socket P (LGA 3647)		1 x Socket LGA1151		2 x Socket P (LGA 3647)		2 x Socket P+ (LGA 4677)	
	Family	Intel® Xeon® Scalable Processor Family						Intel® E3-1200 or Core-i3		Intel® E2xxx or Core-i3		Intel® Xeon® Scalable		Intel® E2xxx or Core-i3		Intel® Xeon® Scalable Processor Family	
	Generation	3rd Generation		4th and 5th Generation		Xeon® E3-1200 v5 or v6		Xeon® E2100/E2200		Xeon® 1st and 2nd Gen		Xeon® E2100/E2200		Xeon® 1st and 2nd Gen		Xeon® 4th and 5th Gen	
	UPI	UPI 11.2 GT/s		UPI 32 GT/s						UPI 10.4 GT/s							
Core Logic and Mainboard		Intel® C621A PCH Chipset Powered by ASUS Single Xeon Server Series Mainboard		Intel® C741A PCH Chipset Powered by ASUS Single Xeon Server Series Mainboard		Intel® C236 Chipset Powered by ASUS Single Xeon Server Series Mainboard		Intel® C242 Chipset Powered by ASUS Single Xeon Server Series Mainboard		Intel® C621 Chipset Powered by ASUS Single Xeon Server Series Mainboard		Intel® C242 Chipset Powered by ASUS Single Xeon Server Series Mainboard		Intel® C621 PCH Chipset Powered by ASUS Single Xeon Server Series Mainboard		Intel® C741A PCH Chipset Powered by ASUS Single Xeon Server Series Mainboard	
Memory	Total Slots	16 (8-Channels per CPU)		32 (8-Channels per CPU)		4 (2-Channels)				16 (6-Channels per CPU)		4 (2-Channels)		16 (6-Channels per CPU)		32 (8-Channels per CPU)	
	Capacity (Max)	2.0TB RDIMM, LR/3DDCPMM		3.0TB RDIMM, LR/3DDCPMM		64GB UDIMM		128GB UDIMM		512GB RDIMM, 3.5TB LR 3DS		128GB UDIMM		512GB RDIMM, 3.5TB LR 3DS		2.0TB RDIMM, 8.0TB LR/3DS	
	Memory Type	DDR4 3200/2933Mhz RDIMM		DDR5 5600/5200Mhz RDIMM		DDR4 2133Mhz ~ 2400Mhz		DDR4 2400Mhz ~ 2666Mhz		DDR4 2666Mhz ~ 2933Mhz		DDR4 2133Mhz ~ 2400Mhz		DDR4 2666Mhz ~ 2933Mhz		DDR5 4400Mhz ~ 5600Mhz	
	Frequency	DDR4 3200/2933Mhz LR/3DS		DDR5 4800/4400Mhz LR/3DS		UDIMM, ECC and non-ECC		UDIMM, ECC and non-ECC		RDIMM, LR, 3DS, DCPMM		UDIMM, ECC and non-ECC		RDIMM, LR, 3DS, DCPMM		RDIMM, LR, 3DS, DCPMM	
	Memory Module Size	8GB~64GB RDIMM, 64GB~128GB LRDIMM/3DS or 512GB				4GB ~ 16GB UDIMM		4GB ~ 32GB UDIMM		8GB~64GB RDIMM		4GB ~ 16GB UDIMM		8GB~64GB RDIMM		8GB~512GB RDIMM/LR/3DS	
Expansion Slots	Total PCI-E/OCP Slots	Up to 11				4				3		4				3	
	Slot Types	4 x PCIe v4.0 (4 Dual GPU) or 8 x PCIe v4.0 (8 Single-Slot) 2 x PCIe v4.0 x16 (x16) 1 x PCIe v4.0 x8 (x8) 1 x OCP3.0 Gen4		8 x PCIe v5.0 x16 (x16) for 8 Dual-Slot GPU 1 x PCIe v5.0 x8 (x8) 1 x OCP3.0 Gen5		1 x PCI-e v3.0 x16 - 1 x PCI-e v3.0 x8 2 x PCI 32bit/33Mhz				1 xPCIe 3.0 x16 - 1 xPCIe x8 1 x OCP 2.0 Mezzanine		1 x PCI-e v3.0 x16 FH, FL 1 x PCI-e v3.0 x8 FH, FL 2 x PCI 32bit/33Mhz		1 x PCIe 3.0 x16 FH, FL 1 x PCIe 3.0 x8 FH, FL 1 x OCP 2.0 Mezzanine G3		1 xPCIe 5.0 x16 FH, FL 1 xPCIe 5.0 x8 FH, FL 1 x OCP 3.0 Mezzanine	
Storage & RAID Controller	SATA Controller	SATA3 ports (12Gb/s with HW RAID Card) 1 x M.2 connector (2280/2260/2242) (PCIe® Gen4 x4 link) Intel® Rapid Storage Technology Enterprise (RSTe) (Support Software RAID 0, 1, 5, 10)				SATA3 6.0Gb/s ports 2 x M.2 connector (2280/2260/2242) PCIe® Gen3/4/5 x4 link Intel® Rapid Storage Technology Enterprise (RSTe) (Support Software RAID 0, 1, 5, 10)						SATA3 6.0Gb/s ports 2 x M.2 connector (2280/2260/2242) PCIe® Gen3/4/5 x4 link Intel® Rapid Storage Technology Enterprise (RSTe) (Support Software RAID 0, 1, 5, 10)					
	SAS/NVMe Controller	Optional Kits: SAS/NVMe 12.0Gb/s HW RAID (Level Support: 0,1,10) SAS 12.0Gb/s HW RAID (Level Support: 0,1,10,5,50,6,60)				Optional Kits: 6.0Gb/s HW SAS RAID card (Raid Support 0,1,10) 12.0Gb/s HW SAS RAID Card (Raid Support 0,1,10, 5, 50, 60)						Optional Kits: 6.0Gb/s HW SAS RAID card (Raid Support 0,1,10) 12.0Gb/s HW SAS RAID Card (Raid Support 0,1,10, 5, 50, 60)					
Storage Bays		8 x Hotswap Front 2.5" HDD Bays (SAS/SATA/NVMe) 1 x Internal M.2 connector (2280/2260/2242) (Gen4 x4 link)				4 x Hotswap 2.5"/3.5" HDDs 2 x M.2 (2280/2260/2242)						4 x Internal 2.5"/3.5" HDDs 2 x M.2 (2280/2260/2242)					
Auxiliary Storage	Optical Drive	No ODD				Standard DVD/DVDRW Drive						Optional Standard DVD/DVDRW Drive					
Networking	Standard LAN	2 x Intel I350-AM2 1.0Gb/s Ethernet LAN Ports				4 x Intel® I210AT 1.0Gb/s				2 x Intel® X722 1.0Gb/s		4 x Intel® I210AT 1.0Gb/s		2 x Intel® X722 1.0Gb/s		2 x Intel X710-AT2 10.0Gb/s	
	Optional LAN	2 or 4 or Ethernet: 1.0Gb/s, 10Gb/s, 25Gb/s, 100Gb/s				Additional 2 or 4 or Ethernet Ports: 1.0Gb/s, 10.0Gb/s, 25.0Gb/s, 100.0Gb/s						Additional 2 or 4 or Ethernet Ports: 1.0Gb/s, 10.0Gb/s, 25.0Gb/s, 100.0Gb/s					
	Management Port	1 x Port for Remote Management and iKVM Access				1 x 1.0Gb/s RJ45 Port for Remote Management and iKVM Access						1 x 1.0Gb/s RJ45 Port for Remote Management and iKVM Access					
Graphics		Aspeed AST2600 64MB				Aspeed AST2400 w/ 32MB		Aspeed AST2500 w/ 32MB		Aspeed AST2600 w/ 64MB		Aspeed AST2400 w/ 32MB		Aspeed AST2500 w/ 64MB		Aspeed AST2600 w/ 64MB	
Front I/O Ports		4 x USB 3.2 Gen1 ports				2 x USB 3.0 ports, 1 x VGA port						2 x USB 3.0 ports, 1 x VGA port					
Rear I/O Ports		2 x USB 3.2 Gen1 ports 1 x VGA port 2/4 x RJ-45 Gigabit/10G LAN ports 1 x RJ-45 Management port				2 x USB 3.0 - 2 x USB 2.0 1 x VGA port 4 x RJ-45 GB LAN 1 x Mng. 1 x PS/2 Keyboard/Mouse		2 x USB 3.0 - 2 x USB 3.1 1 x VGA port 4 x RJ-45 GB LAN 1 x Management Port		2 x USB 3.0 - 2 x USB 2.0 1 x VGA port 4 x RJ-45 GB LAN 1 x Mng. 1 x PS/2 Keyboard/Mouse		2 x USB 3.0 - 2 x USB 3.1 1 x VGA port 2 x RJ-45 GB LAN 1 x Management Port		4 x USB 3.2 1 x VGA port 2 x RJ-45 10GB LAN 1 x Management Port			
OS Support		Windows® Server 2016, 2019, 2022 Windows® Server 2012, 2012 R2 Windows® 11, 10 64-bit, Windows® 8, 8.1 64-bit RedHat® Enterprise Linux , SuSE® Linux Enterprise, CentOS, Ubuntu, VMware, Citrix XenServer				Windows® Server 2016 RedHat® Enterprise Linux SuSE® Linux Enterprise CentOS Citrix XenServer		Windows® Server 2016, 2019 RedHat® Enterprise Linux SuSE® Linux Enterprise CentOS Citrix XenServer VMWare		Windows® Server 2016, 2019, 2022 Windows® Server 2012, 2012 R2 Windows® 10, 11 64-bit Windows® 8, 8.1 64-bit RedHat® Enterprise Linux , SuSE® Linux Enterprise Server, CentOS, Ubuntu VMware, Citrix XenServer, Microsoft HyperV							
Remote Management	Software	Remote Control Center Enterprise (Optional)				Remote Control Center Enterprise (Optional)						Remote Control Center Enterprise (Optional)					
	Remote Access	iKVM Module for KVM-over-Internet				Onboard Module for KVM-over-Internet						Onboard Module for KVM-over-Internet					
Regulatory Compliance		Iran Standard, Iran CRA, CE, Energy Star				Iran Standard, Iran CRA, CE, Energy Star						Iran Standard, Iran CRA, CE, Energy Star					
Dimensions		800mm x 440mm x 88mm		800mm x 440mm x 174.5mm		380mm x 430mm x 380mm Tower or 4U Rackmount (with Optional Railkit)				380mm x 430mm x 380mm Tower or 4U Rackmount (with Optional Railkit)				380mm x 430mm x 380mm Desktop			
Net Weight	(CPU, RAM, HDD not Included)	34 kg		47 kg		11.0 kg		11.0 kg		12.0 kg		11.0 kg		11.0 kg		12.0 kg	
Gross Weight		44 kg		52 kg		18.0 kg		18.0 kg		19.0 kg		18.0 kg		18.0 kg		19.0 kg	
Power Supply	Power Options	1+1 Redundant 1600W/2200W 80+ Platinum or Titanium		2+1 or 2+2 Redundant 2600W/3000W 80+ Titanium		Single 450W 80+ Bronze				Single 550W 80+ Gold		Single 450W/550W/750W/1200W/1600W 80+ Bronze /Gold/Platinum					
	Rating	Rating: 100-127/200-240 VAC, 10A/5A, 50-60Hz, Class I				Rating: 100-127/200-240 VAC, 10A/5A, 50-60Hz, Class I				Rating: 100-127/200-240 VAC, 10A/5A, 50-60Hz, Class I							
Environment		Temperatures: Operation 10°C ~ 35°C , non-Operation: -40°C ~ 70°C , Non operation Humidity: 20% ~ 90% (Non Condensing)															



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