

## J312-S Fintech Server

### Precision Time Measurement, High Performance, Low Latency, 5th Gen Intel® Xeon Dual Socket 1U Rackmount Server

Tackle your most demanding fintech needs with a purpose-built server platform offering NVMe, SAS, and SATA hot pluggable storage and customizable high speed, low-latency I/O options. This 1U dual socket server brings you flexibility, scalability, and reliable performance to support time synchronization sensitive applications in the financial services industry.

#### REMARKABLE PERFORMANCE

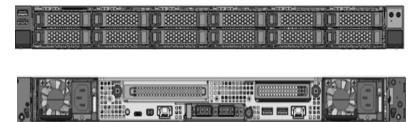
Featuring low latency, high speed PCIe Gen5, DDR5 memory and CXL 1.1, 5th Gen Intel Xeon processing power, and flexible storage capacity, this server maximizes datacenter performance and efficiency for fintech applications.

- 5th Generation Intel® Xeon® (Emerald Rapids) Scalable processor microarchitecture offers superb power efficiency, data integrity protection, and proven reliability for evolving customer expectations. This means better response time for more applications running simultaneously with increased total performance.
- Precision Time Measurement (PTM) optimized motherboard to meet the exacting demands of the financial services industry (FSI), achieving CPU and applications synchronization with nanosecond precision.
- Supports the latest high performance smartNICs, and FPGA accelerators at PCIe Gen5 speed without retimers or expanders in the I/O path for the lowest latency possible.
- NVMe PCIe Gen5 and SAS 4 (24G) SSD options offering high-speed, reduced latency and increased IOPs to unlock the full performance capabilities of today's processors.
- Intel® VROC NVMe RAID and Hardware RAID options available

#### VERSATILE EXPANDABILITY

The J312-S is a highly configurable server providing many different configurations of network adapters, accelerators, NVMe, SAS, or SATA SSD drive slots to expand with your needs, and offers:

- Up to 12x small form factor (SFF) front SSD drives
- 2x internal M.2 NVMe slots
- 2x PCIe Gen5 add-in card slots and an OCP 3.0 PCIe Gen5 slot allows for a wide array of network, accelerator, and storage controller connectivity into the server to fit a wide array of fintech workload needs.
- Configured to order with Xilinx® XtremeScale™ ethernet adapters and Alveo™ data center accelerators.



#### FEATURES

- Precision Time Measurement (PTM) optimized
- Scalable for high-performance, low-latency workloads, or cost savings
- Security options safeguarding platform integrity
- Customizable BIOS & application optimization tuning
- Improved performance with Gen5 PCIe/ NVMe and CLX 1.1
- Redfish API support
- Low Latency SmartNics and accelerator options

## SPECIFICATIONS

### CHASSIS

Form Factor	1U Rackmount
Model	J312-S

### DIMENSIONS

W x H x L	<ul style="list-style-type: none"> <li>• 482.9mm x 43.5mm x 795.7mm</li> <li>• 19" x 1.71" x 31.3"</li> </ul>
Weight	<ul style="list-style-type: none"> <li>• L6: Approx. 12.43kg (27.4lbs)</li> <li>• L10: Approx. 22kg (48.5lbs)</li> </ul>

### MOTHERBOARD

PTM Optimization	<ul style="list-style-type: none"> <li>• 2x TGPIIO ports for PTM</li> <li>• Ability to set signal direction (input, output) independently for each TGPIIO port</li> </ul>
------------------	---

### PROCESSOR

CPU	<ul style="list-style-type: none"> <li>• 2x 5th Generation Intel® Xeon® (Emerald Rapids)</li> <li>• Scalable processors</li> <li>• Supports CPU TDP up to 250W</li> <li>• Up to 3 UPI</li> </ul>
-----	--

### SYSTEM MEMORY

Memory Capacity	Up to 32x DDR5 slots: 8 channels/16 slots per socket
Memory Type	Up to DDR5-5600 ECC RDIMM, up to 8TB max memory

### ON-BOARD DEVICES

Chipset	Intel® C741 Chipset
BMC	<ul style="list-style-type: none"> <li>• ASPEED AST2600</li> <li>• IPMI 2.0 with virtual media over LAN, and KVM-over-LAN support</li> <li>• Redfish supported</li> </ul>
Network Controllers	<ul style="list-style-type: none"> <li>• 1x host 1GbE RJ45</li> <li>• 1x dedicated BMC 1GbE RJ45</li> </ul>
RAID	<ul style="list-style-type: none"> <li>• VROC 8.0 NVMe RAID support</li> <li>• PCIe add-in card NVMe/SAS/SATA support</li> </ul>
Security	<ul style="list-style-type: none"> <li>• Trusted Platform Module (TPM) 2.0</li> <li>• Intel® PFR 3.0</li> <li>• Intrusion Detection kit (optional)</li> </ul>

### REAR I/O

USB	<ul style="list-style-type: none"> <li>• 2x USB 3.0</li> <li>• 1x USB-C (BMC-UART)</li> </ul>
Rear Additional	<ul style="list-style-type: none"> <li>• UID Button/LED</li> <li>• 1x Mini DisplayPort</li> </ul>

### FRONT I/O

Buttons	<ul style="list-style-type: none"> <li>• Power Off/On</li> <li>• UID</li> </ul>
LEDs	<ul style="list-style-type: none"> <li>• UID</li> <li>• Power Status</li> <li>• System Health</li> <li>• Network Activity</li> <li>• Power Fault</li> </ul>
USB	<ul style="list-style-type: none"> <li>• 1x USB 3.0</li> <li>• 1x USB 2.0</li> </ul>

### EXPANSION SLOTS

Network Adapter options	<ul style="list-style-type: none"> <li>• Xilinx® Alveo™ U55C Data Center Accelerator</li> <li>• Xilinx® XtremeScale™ X2522 dual port SFP28 10/25GbE</li> <li>• Xilinx® XtremeScale™ X2541 single port SFP28 10/25/40/50/100GbE</li> <li>• Napatech NT100A01 quad port SFP28 1/10/25GbE</li> <li>• Napatech NT200A02 dual port QSFP28 10/25/100GbE</li> </ul>
-------------------------	--

### DRIVE OPTIONS

Toolless hot swap drives	Up to 12x 2.5" SFF 24G SAS/6G SATA/PCIe Gen5 NVMe hybrid SSDs
Boot drives	2x M.2 NVMe

### SYSTEM COOLING

Fans	N+1 fan redundancy, 8x toolless, dual rotor
------	---

### POWER SUPPLY

1300W Titanium and Platinum level CRPS 1+1 Redundant, hot swappable, toolless PSUs

Input	• 1300W: 220~240Vac/8A/50/60Hz
-------	--------------------------------

### OPERATING ENVIRONMENT/COMPLIANCE

<ul style="list-style-type: none"> <li>• Operating Temperature</li> <li>• Non-Operating Temperature</li> <li>• Operating Relative Humidity</li> <li>• Non-Operating Relative Humidity</li> </ul>	<ul style="list-style-type: none"> <li>• 10°C - 30°C (50°F to 95°F)</li> <li>• -40°C to 60°C (-40°F to 140°F)</li> <li>• 5%~ 90%</li> <li>• 5% ~ 95%</li> </ul>
Compliance/Regulatory	RoHS, FCC, UL, CE

**Warranties and Limitation of Liability.** This document provided by Jabil is provided "as is" without warranties of any kind, whether express or implied, including but not limited to implied warranties of merchantability, fitness for a particular purpose, and non-infringement. Jabil has made every effort to include accurate and timely information about its products and services. However, Jabil has not made and does not make any warranties or representations as to its accuracy or completeness. Jabil assumes no liability or responsibility for any errors or omissions in this document. When you use such Jabil information, you are doing so at your own risk and you expressly understand and agree that under no circumstances shall Jabil be liable for any direct, indirect, incidental, special, consequential or exemplary damages resulting from your use of this document.

Contact your **Jabil Sales Representative** for configuration options and technical details