

# Vantage 1540-WS

Flexible, Scalable, and Secure



## The Vantage 1540-WS is designed for high-performance workstation

### Key Features

- 5th/4th Gen Intel® Xeon® Scalable processors, Single Socket LGA-4677 (Socket E), CPU TDP supports up to 350W TDP
- Intel C741® Chipset
- Up to 2TB 3DS ECC RDIMM, DDR5-5600MT/s (1DPC) in 8 DIMM slots
- 2 MCIO (PCIe5.0 x8) connectors for 4 NVMe SSDs
- 3 PCIe 5.0 x8,  
2 PCIe 5.0 x16,  
M.2 Interface: 2 PCIe 5.0 x4  
M.2 Form Factor: 2280, 22110  
M.2 Key: M-Key
- Dual LAN with 10GbE with Intel® X550
- 4 USB 3.2 Gen1 (2 rear, 1 Type-A, 1 via header), 2 USB 2.0 (2 rear)
- Intel® C741 controller for 10 SATA3 (6 Gbps) ports

### Processor Compatibility:

It supports 5th and 4th Generation Intel® Xeon® Scalable Processors with a single socket (Socket LGA-4677) and can handle up to 350W CPU TDP. The motherboard allows up to 64 cores in this configuration.

### Memory:

It has eight DIMM slots and supports up to 2TB of DDR5 ECC RDIMM memory, with speeds up to 5600 MT/s (1DPC configuration). Supported DIMM sizes range from 16GB to 256GB, providing flexibility in memory configurations.

### Storage

It includes an Intel® C741 chipset that supports 10 SATA3 (6 Gbps) ports, with RAID configurations available (0, 1, 5, 10). Additionally, it features two MCIO connectors (PCIe 5.0 x8) to support up to four NVMe SSDs.

### Expansion Slots

The board is equipped with three PCIe 5.0 x8 and two PCIe 5.0 x16 slots, along with two M.2 slots (PCIe 5.0 x4) for high-speed storage or networking expansion.

### Networking

It features dual 10GbE LAN ports with Intel® X550 controllers, providing high-speed network connectivity.

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There are multiple USB ports, including four USB 3.2 Gen1 ports (two rear, one Type-A, one header) and two USB 2.0 ports.

| Vantageo 1540-WS    |                                                                                                                                                                                                             |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Features            | Technical Specification                                                                                                                                                                                     |
| CPU                 | 5th Gen Intel® Xeon® / 4th Gen Intel® Xeon® Scalable processors<br>Single Socket E (LGA-4677) supported, CPU TDP supports Up to 350W TDP                                                                    |
| Core                | Up to 64 cores                                                                                                                                                                                              |
| Memory Capacity     | 8 DIMM slots<br>Up to 2TB 3DS ECC RDIMM, DDR5-5600MT/s<br>**24GB & 48GB DIMM only support 1 DPC.<br>*24GB/48GB/96GB DDR5 DIMMs with 24Gb chip are only supported by 5th and 4th XCC Gen Intel® Xeon-SP CPU. |
| Memory Type         | 5600/5200/4800/4400/4000 MT/s ECC DDR5 RDIMM (3DS) Up to 256GB of memory with speeds of up to 5600MT/s(1DPC)                                                                                                |
| DIMM Sizes          | 16GB, 24GB, 32GB, 48GB, 64GB, 96GB, 128GB, 256GB                                                                                                                                                            |
| Memory Voltage      | 1.1V                                                                                                                                                                                                        |
| Error Detection     | Corrects single-bit errors                                                                                                                                                                                  |
| Chipset             | Intel® C741                                                                                                                                                                                                 |
| SATA                | Intel® C741 controller for 10 SATA3 (6 Gbps) ports; RAID 0,1,5,10                                                                                                                                           |
| IPMI                | ASPEED AST2600 BMC                                                                                                                                                                                          |
| Graphics            | 1 Aspeed AST2600 BMC port(s)                                                                                                                                                                                |
| Network Controllers | Dual LAN with 10GBase-T with Intel® X550                                                                                                                                                                    |
| SATA Port           | 10 SATA3 (6Gbps) port(s)                                                                                                                                                                                    |
| LAN                 | 2 RJ45 10 Gigabit Ethernet LAN ports<br>1 RJ45 Dedicated IPMI LAN port                                                                                                                                      |
| USB                 | 2 USB 2.0 port(s) (2 rear)<br>4 USB 3.2 Gen1 port(s) (2 rear; 1 via header; 1 type A)                                                                                                                       |
| Video Output        | 1 VGA D-Sub Connector port(s)                                                                                                                                                                               |
| Serial Port         | 1 COM Port(s) (1 header)                                                                                                                                                                                    |
| DOM                 | 2 SATA <u>DOM</u> (Disk on Module) power connector support                                                                                                                                                  |
| TPM                 | 1 TPM Header                                                                                                                                                                                                |
| PCIe                | 2 PCIe 5.0 x16,<br>3 PCIe 5.0 x8,<br>2 PCIe 5.0 x8 PCIe5.0 MCIO connector                                                                                                                                   |
| M.2                 | M.2 Interface: 2 PCIe 5.0 x4<br>Form Factor: 2280/22110<br>Key: M-Key                                                                                                                                       |
| BIOS Type           | AMI UEFI                                                                                                                                                                                                    |
| BIOS Features       | ACPI 6.4<br>SMBIOS 3.5<br>UEFI 2.8 or above                                                                                                                                                                 |
| Voltage             | VBAT, System level control, Supports system management utility, Monitors CPU voltages, Chipset Voltage, Chassis intrusion header, +5V standby, +5V, +3.3V, +12V, Memory Voltages, 7-fan status              |
| LED                 | UID/Remote UID<br>CPU / System Overheat LED                                                                                                                                                                 |
| Temperature         | Monitoring for CPU and chassis environment<br>CPU thermal trip support<br>Thermal Monitor 2 (TM2) support<br>PECI                                                                                           |

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| Vantageo 1540-WS                      |                                                                                                                                 |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Features                              | Technical Specification                                                                                                         |
| Dimensions                            | Case dimensions (LxWxH)<br>604 x 240 x 566 mm                                                                                   |
| Net Weight                            | Solid Version: 16.53 kg, TG Version: 16.64 kg                                                                                   |
| FAN                                   | 7x 4-pin fan headers (up to 7 fans)<br>Fan speed control<br>Overheat LED indication<br>7 fans with tachometer status monitoring |
| Operating Temperature Range           | 0°C - 50°C (32°F - 122°F)                                                                                                       |
| Non-Operating Temperature Range       | -20°C - 60°C (-4°F - 140°F)                                                                                                     |
| Operating Relative Humidity Range     | 10% - 85% (non-condensing)                                                                                                      |
| Non Operating Relative Humidity Range | 10% - 95% (non-condensing)                                                                                                      |

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