

# VOYAGER/HPC

## High Performance Computing

VoyagerHPC is a rugged, high performance computing (HPC) edge server designed for the next generation of advanced mission software, cloud, and data intensive applications at the edge.

VoyagerHPC is built on the power efficient 3rd Gen AMD EPYC™ 7713P (64 cores) processor, providing data center compute performance at the tactical edge. VoyagerHPC comes in a rugged and intelligent chassis with wide ranging AC and DC input that is battery backed to support rapid deployment and operation in DDIL environments.



## KEY FEATURES

- AMD EPYC™ 7713P (64 cores) processor with 512 GB RAM
- Four removable E1S NVMe self encrypted (SED) SSDs
- VIK+ SED removable NVMe device for boot or write cache operations
- High aggregated networking capacity — 4 x 25 GbE and 3 x 2.5 GbE interfaces
- High-speed PCIe Gen 4 expansion interface to extend the HPC module with NVIDIA GPU or NVMe storage capabilities
- Secure management via Klas-maintained OpenBMC embedded firmware



SECURE



PORTABLE



RUGGED

# VOYAGER/HPC

## Specifications



### VoyagerHPC

#### ORDERING INFORMATION

- Part No: KLAS-VOY-HPC-A

#### CPU

- AMD EPYC™ 7713 processor
  - Max frequency: 3.675 GHz
  - Max cores: 64
  - Max threads: 128
  - TDP: 225 W
  - RAM: 512 GB

#### STORAGE

- 4 x E1.S 9.5mm NVMe SED SSDs
- 1 x VIK+ NVMe (1 TB) boot or write-cache device
- 1 x 256 GB NVMe internal boot device (optional)

#### NETWORKING AND INTERFACES

- 4 x 25 Gbps SFP28 interfaces
- 3 x 2.5 Gbps RJ45 Ethernet ports
- 1 Gbps RJ45 interface for management
- 1 x serial console / RJ45 and USB serial (micro-USB format)
- 1 x USB-C
- 2 x USB-A

#### EXPANSION INTERFACE

- PCIe Gen 4 expansion interface (supports expansion modules of NVIDIA GPU or NVMe storage)
- 24 x PCIe Gen 4 lanes

#### SECURITY

- TPM 2.0
- AMD Infinity Guard
  - Secure Boot

- Transparent Secure Memory Encryption
- Shadow Stack
- Secure Encrypted Virtualization
- SEV Encrypted State
- SEV Secure Nested Paging
- Virtual machine scalability

#### ELECTRICAL SPECIFICATIONS

- DC input power: 12 VDC (450 W)

#### PHYSICAL SPECIFICATIONS

- 208 mm x 188 mm x 162 mm (8.2" x 7.4" x 6.4") / 3 x Voyager chassis slots
- ~6 kg/ 13.23 lb (without SSDs)

#### CONSTRUCTION

- Aluminium chassis with integrated active cooling

#### TEMPERATURE RANGE

- Operating temp: 32°F to 122°F (0°C to 50°C)
- Storage temp: -40°F to 185°F (-40°C to 85°C)

#### COMPLIANCE

Designed to meet:

- MIL-STD-810
- MIL-STD-461
- FCC Part 15 B
- CE
- RoHS, REACH

#### MANAGEMENT

- Klas-maintained OpenBMC
- BIOS & hypervisor CLI over console

### Voyager 8+ 750 Transit Case & Chassis

#### ORDERING INFORMATION

- Part No: KLAS-VOY-CHAS8P-B

#### PHYSICAL SPECIFICATIONS

- 478 x 571 x 257 mm (18.8" x 22.5" x 10.1")

#### ELECTRICAL INPUT

- 22-36 VDC (38 Amp maximum)
- 90-264 VAC (< 10 Amp at 100 VAC)

#### ELECTRICAL OUTPUT

- 2 x AC outputs available when AC input is present
- 750W max (710 W available at slots)

#### UPS

- 3 x BB-2590 batteries

#### MANAGEMENT

- Rugged SMARC compute card
- 1 GbE and console port interface
- LCD display
- Klas-maintained OpenBMC



## Klas-Maintained OpenBMC

VoyagerHPC and Voyager 8+ 750 chassis are managed via a separate Baseboard Management Controller system on chip, providing remote, out-of-band administrative access via a 1 GbE management interface using Klas-maintained OpenBMC firmware. Klas-maintained OpenBMC supports common IT use cases including Keyboard, Video, and Monitor (KVM) access, hardware configuration, and OS installation.

