



PacStar 455 Tactical Hyper-Convergence Module



PacStar 455 Tactical Hyper-Convergence Module provides a high performance cloud, virtualization and storage platform for forward deploying applications or providing network attached storage in a compact, quick setup, and rugged form factor.

Ideal platform for a wide variety of edge use cases in forward deployed settings including:

- Advanced cloud replication, application virtualization or hyper-convergence
- Application performance acceleration
- General purpose NAS storage
- Satellite/GIS imagery caching
- Video serving/storage
- Cybersecurity applications with large storage requirements such as package capture, netflow analysis, SIEM, DLP, or threat analytics DLP, or threat analytics
- WAN optimization

Designed for in-theater operations, vehicle-mount, early entry or forward operating base deployments for military, Homeland Security, first responders, and commercial/enterprise users, PacStar 455 meets size, weight, and power requirements unmatched by other COTS appliances.

The physical package utilizes PacStar 400-Series standard module form factor and patented interconnect, and offers the best in small size, flexible power, and environmental ruggedness. PacStar offers a wide array of system packaging options for PacStar 400-Series, including brief-case style, transit case-style, and backpack-style transport options.

KEY FEATURES

- Intel 5th generation Xeon D 8- or 12-core processors for general purpose or dedicated compute tasks
- Up to 64 TB RAID SSD storage via 8 x 2.5" SSD
- Best in class Avago RAID controller for high performance and extensive RAID options
- 10 GigE SFP+ ports for high performance data replication and networking including on-board virtual network functions
- Integrated smart power supply that runs on tactical radio batteries, wide range DC input and worldwide AC input
- Snap-together design enables quick expansion with other PacStar 400-Series products and packaging
- Compact design for flexible packing and transport
- Extensive environmental testing (pending), for tactical deployments
- Best in class SWaP: Small, but powerful; only 5.3" x 7.1" x 5.5" and only 6.4 lbs

SOFTWARE OPTIONS

Supports a wide array of software applications, NAS software platforms and hyper-converged solutions, appropriate for use in the tactical computing and storage applications.

General purpose computing:

- Microsoft Windows Server
- VMware ESXi
- Docker
- Linux
- Solaris (x86)
- FreeBSD

NAS/Hyper-converged software including:

- VMware VSAN
- NetApp[®] ONTAP[®] Select
- iSCSI/NFS SAN for VMware Datastore

PACSTAR 455 TACTICAL HYPER-CONVERGENCE PLATFORM Processor

- Intel 5th generation (Broadwell) Xeon D 8- or 12-core options with up to 64 GB RAM, with TPM 2.0

Embedded Storage

- 128 GB CFast SATA drive, non-RAID, designed for use with boot OS(s) and utilities

RAID Storage

- Avago MegaRAID[®] SAS 9361-8i controller
- Up to (8) user removable single 2.5" SSD (7 mm), with single SSD capacity up to 8 TB, or 64 TB raw system total storage
- RAID levels include: 0, 1, 5 and 6
- RAID spans include: 10, 50 and 60
- SATA interface, up to 6 Gb/s transfer rate per drive. System as configured tested to 4.7Gbps
- 1 GB on-board cache
- Uses x8 lane PCI Express 3.0 interface to mother board high transfer rates

User I/O Option

- (2) 10 GigE SFP+ and (3) 1 GigE Copper RJ-45 individually routable, available for use by software routers/firewalls or other network function virtualization: (1) RJ-45 console port, (1) HDMI, (1) USB-C 3.1 Port

Power

- Wide range DC input (10 - 36 VDC)
- 12V DC output connector, KG-250X compatible, providing ~20 watts
- Radio battery and PacStar 400-Series power snap-together connector

Physical Specifications

- Dimensions 5.3" x 7.1" x 5.5" Fits into PacStar 400-Series Smart Chassis and Rack Mount Frame, consuming 3 module slots
- Weight 6.4 lbs.
- Snap together connector provides DC pass-through for powering additional PacStar 400-Series products
- (3) small fans driving air over conductively coupled heat exchangers; electronics sealing boundaries are not violated
- Environmental testing to MIL-STD 810G (Pending)
- EMI testing to MIL-STD 461 (Pending)
- Power testing to MIL-STD-704D (Pending)

Power Specifications

- Battery snap-together connectors for up to (3) AN/PRC-152/148 snap on radio batteries with 2+ hours runtime total
- Wide range DC input, 10-36V
- World-wide AC power input (with adapter cable)
- Regulated clean 12V DC output, 20 watts (KG-250X support)
- Power draw: 45 watts on idle. Estimated 100 watts during sustained high usage

*Also available with Xeon E3 quad-core processor and (5) GigE Ethernet ports. Contact us for more information.

PacStar systems including this product may be covered by one or more of the following US patents: #8,654,749, #7,817,589, #8,270,325, #9,160,619, #9,225,102. Additional patent(s) pending. See www.pacstar.com/patents for details.

