PacStar 251

Rugged, in-theater computing and virtualization platform

The PacStar® 251 provides a computing and virtualization platform for hosting one or more software applications or virtual appliances in a compact, quick setup, rugged form factor.

Designed for in-theater computing, executive communications, vehicle-mount, early entry or forward operating base or remote deployments for military, Homeland Security, first responders, and commercial/ enterprise users. The PacStar 251 meets size, weight, and power (SWaP) requirements unmatched by other COTS appliances.

The PacStar 251 is available with a wide variety of pre-loaded, pre-secured, and pre-qualified software applications or virtualized appliances appropriate for use in tactical C5ISR/EW applications. These include, but are not limited to:

- Virtualized and software defined networking and WAN, routing, switching
- VPN, TLS encryption, PKI
- Cybersecurity: firewalls, IDS, threat analytics, SIEM, NetFlow
- Unified communications
- Video encoding, transcoding and analytics
- Tactical cloud deployment
- Mobile device and wireless network management
- Hyper-convergence and storage
- General-purpose application hosting

The PacStar 251 is available in a high-performance NVMe SSD storage and IPMI for remote and out-of-band management. The PacStar 251 module footprint offers the best in small size, flexible power, and environmental ruggedness.

PacStar offers a wide array of system packaging options, including briefcase style, transit case style, 19” rack mount, vehicle-mount, and backpack style transport options.

The PacStar 251 is available with a powerful Intel Atom x6425RE processor with 32GB of RAM.

Key Features

- A wide variety of appliance options available including networking technologies from Aruba Networks, Cisco Systems, Forcepoint, Haivision, Information Security Corp, Juniper, Palo Alto Networks, Peraton Labs, and more
- Intel Atom x6425RE processor with 32GB RAM
- 3 GigE ports, (2) of which are PoE enabled
- IPMI management
- Up to 4TB NVMe Drive, provides up to 6X faster performance than SATA SSDs
- TPM 2.0 for increased security and STIG compliance
- Small, but powerful; only 5.75” x 7.25” x 0.825”
- Optionally managed by PacStar IQ-Core® Software for easy setup and configuration

Specifications

Physical Specifications

- Dimensions: 5.75” x 7.25” x 0.825”
- Weight: 2.0 lbs
- Patented snap-together connector
- Fanless design for quiet operation, higher reliability, and extended battery life
- Operational temperature range (-20C to 60C)
- Designed to meet to MIL-STD-810/461 by independent labs. Independant lab testinf pending.

Storage Options

- **Toolless user removable, 1.3” NVMe SSD drive cartridges (up to 4TB)**
  - Optional: Internal, user serviceable 240GB SSD drive

Power Specifications (with Power Input Adapter or chassis sold separately)

Power draw: Nominal 13 watts total (plus PoE load)

- Battery snap-together connectors for 1-2 each AN/PRC- 152/148 snap-on radio batteries; hot-swappable with 5+ hours runtime per battery.
- Includes built-in recharger for attached tactical radio batteries
- Wide-range DC input, 10 - 35 VDC. For example, allows powering with AN/PRC-117 radio batteries
- Worldwide AC power input (power supply with adapter cable)
- Regulated clean 12 VDC output, 20 watts (supports KG-250X/XS or KG-175D)
- PoE Plus power: Up to 60 watts available PoE power
- Locking power input connector to prevent accidental disconnection
- Power input specifications available for creating custom cables with industry-standard parts
- Available marked chassis ground for external grounding

Other Capabilities

- Lights-out mode
- Zeroize button for configurable secure erasure

Table 1 CPU

CPU	Physical Cores	RAM	Disk	IO	TPM 2.0
Intel Atom® Processor x6425RE (Elkhart Lake)	4 (15W)	Up to 32 GB	Up to 4 TB toolless removable Up to 240 GB user servicable	-	Yes

Table 2 IO options

IO Options	Ethernet	USB	Display	Serial
A	3	2 USB 3.1	DisplayPort	RS-232 (RJ45)

Supported Software Appliances

Network Function Virtualization: Providing Routing, Switching, Network Optimization
Cisco Cloud Services Router 1000v and Catalyst 8000v
Cisco Integrated Services Router 5921
Aruba Virtual Mobility Controller (Wireless Infrastructure Controller)
Riverbed Virtual SteelHead (SATCOM/ WAN performance optimization)
VIASAT NETAGILITY™ NVR-1000

Cybersecurity: Firewall, VPN, Network Intrusion Detection, Threat Analytics, and Network Defense
Aruba ClearPass – Authentication
Cisco ASA and Firepower – Firewall, IDS, Analytics, VPN
Cisco Stealthwatch - Cyber Analytics
Elastic - SIEM
Forcepoint NGFW – Firewall, IDS, VPN
Juniper vSRX – Firewall, IDS and VPN
PacStar IQ-Core Crypto Manager – PKI, Crypto and SIEM
Palo Alto Networks – Firewall, IDS and VPN
Peraton Labs SecureIO
Red Hat Enterprise Linux with Certificate Services - PKI
Information Security Corp CertAgent - PKI
Microsoft Windows Server – Domain Control, Authentication, PKI

IP-Based Unified Communications: Voice, Video and Conferencing
Cisco Unified Communications Manager - Complete UC suite
REDCOM Sigma® - Complete UC suite

General Purpose Application Hosting
VMware ESXi, Xen Server, KVM, and Hyper-V Hypervisors
General-purpose Windows servers - can host a nearly unlimited array of applications (Exchange, SQL Server, Sharepoint, etc.)
Linux Services - Can host a nearly unlimited array of applications
DoD-specific mission command applications

PacStar products are covered by multiple patents. Additional patent(s) pending. See www.pacstar.com/patents for details.