unitronix
THE EMBEDDED EDGE
Office 102 Milton Keynes Business Centre, Hayley Court,
Foxhunter Drive, Linford Wood, Milton Keynes, MK14 6GD
+44(0)1908 698810
sales@unitronix.co.uk www.unitronix.co.uk



PACIFIC DEFENSE

www.pacific-defense.com



# RCH9090VP

## *SAVE-Aligned Chassis*



### Integrated Multi-Mission Comms/EW/C5ISR Solutions

The RCH9090VP is a next-generation, rugged 3U VPX chassis engineered for demanding deployed computing and C5ISR applications. Building on the proven architecture of Pacific Defense's SX-923, the RCH9090VP provides a high-performance 9-slot platform for scalable, mission-ready processing and networking. The chassis is aligned with CMOSS, SOSA™, OpenVPX™, and Standardized A-Kit / Vehicle Envelope (SAVE) technical standards, enabling interoperability, modularity, and long-term technology insertion.

Designed for harsh environments, the RCH9090VP combines ruggedized construction with an optimized architecture for high-density 3U VPX systems. Its next-generation design is optimized for cost while providing the flexibility and performance required for evolving mission requirements. The platform supports rapid integration of commercial and defense-oriented VPX technologies, helping reduce development risk and simplify future upgrades.

Leveraging the field-proven foundation of the SX-923, the RCH9090VP provides a durable platform optimized for power distribution, thermal management, system integration, and maintainability. It delivers a standards-aligned solution for air, land, and sea applications where size, weight, power, reliability, affordability, and mission adaptability are critical.

## KEY FEATURES

- Built to CMOSS, SOSA™, OpenVPX™, and SAVE standards
- Supports rapid integration of processing, networking, storage, I/O, and specialized mission payloads
- 9 slot backplane configuration
- 3U VPX plug-in card (PIC) form factor
- Side loading plug-in cards access
- Backplane Fat Pipes (FP) support up to 100 Gb/s for high data throughput and response time
- Backplane UTP support up to 25 Gb/s
- Two physically separated enclaves to facilitate security certification
- Supports analog radiohead interfaces
- Integrated Chassis Manager module
- Low noise cooling fan solution
- Support for a removable storage device
- Built-in front panel cryptographic key fill, ignition key fill, and zeroize switch
- Customizable front panel user interface for easy access and status reporting

## Front Panel

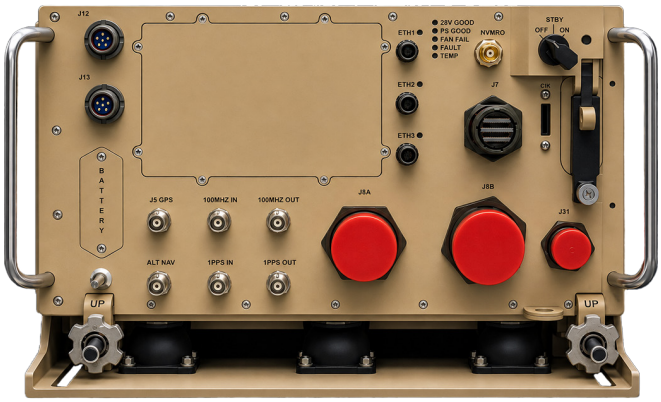
- RF signal inputs/outputs
- Modular Open Radio Frequency Architecture (MORA)
- Vehicular Integration for C5ISR/EW Interoperability (VICTORY) Data Bus
- PNT clock and timing
- Built-in cryptographic key fill, ignition key fill, and zeroize switch
- Removable storage access
- Backup battery access

## Power Supply

- 28V DC chassis input voltage
- SOSA 12V-only power distribution to plug-in cards

## Mounting and Accessories

- Mounting tray available for harsh environments
- Breakout cables provided with each chassis




## Applications

- Electronic Warfare
- Electronic Intelligence
- Signal Intelligence
- Communication
- Networking
- Edge Computing
- Cyber Security Solutions
- Other low power embedded processing solutions

INNOVATIVE

# DEFENSE & COMMERCIAL SOLUTIONS

## Supported Slot Profiles

- SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11-4 mission specific payload slots (4) (other aperture options are supported)
- SLT3-PAY-1F1U1S1S1U1U4F1J-14.6.13-0 mission specific payload slot (1)
- SLT3-SWH-5F4UG7U-14.4.14 switch slot (1)
- SLT3x-TIM-2S1U22S1U2U1H-14.9.2-1 timing slot (1) (other aperture options are supported)
- SLT3-PAY-1F1F2U1TU1T1U1T-14.2.16 I/O intensive slot (1)
- SOSA-aligned power supply slot (1)

## Environmental

- Hybrid cooling ruggedized to meet MIL-STD-810H and MIL-STD-461G
- Highly efficient VITA 48.2 thermal design for conduction cooled PICs in the air-cooled chassis
- Incorporates shock isolators in support of harshest shock requirements

| Description | 9-slot Chassis |
|---|---|
| Size (W x D x H) (inches) | 15.90 in x 15.25 in x 9.29 in *(includes tray and front panel handles)* |
| Weight (lbs) | 37 lbs (approx. chassis only)<br>21 lbs (approx. mounting tray) |
| Max Power Consumption (W) | 600 W |

CMOSS SOSA Sensor Open Systems Architecture MEMBER OpenVPX

Pacific Defense is designed to support the DoD's disciplined movement to modular open standards and to mirror the way military services address EMS warfare – holistic mission planning and execution. The company's approach inherently enables what it refers to as a rapid prototyping paradigm – embedding a commercial mentality into the defense industry. Products are designed from the outset for modern, AI-driven autonomy and CMOSS and SOSA-aligned hardware and software solutions. This includes state-of-the-art processing that can readily follow the evolution of commercial technology with complete data sharing across networks and platforms.

Headquartered in El Segundo, California, Pacific Defense takes an organic, commercial-minded approach to military-use electromagnetic spectrum technologies, and solutions. Focus areas include autonomous systems, command and control, communications, cyber operations, intelligence collection, and electronic warfare. Spectranetix, Perceptronics, and Spear Research are part of the Pacific Defense family, specializing in highly-advanced RF spectrum technologies, and engineering with innovative AI-backed algorithms.

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For More Information: **www.pacific-defense.com | info@pacific-defense.com**
Pacific Defense, 400 Continental Blvd, Suite 100, El Segundo, California 90245