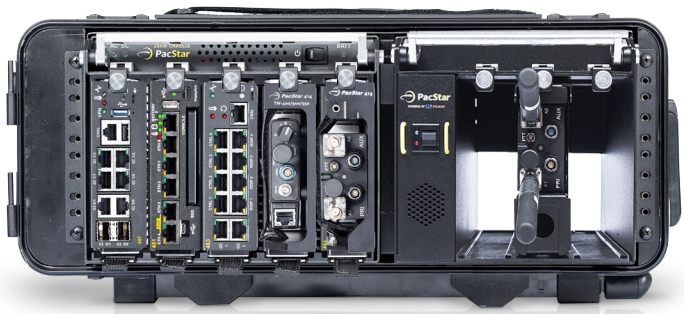


# PacStar Modular Chassis and Mounting Solutions

**PacStar offers a wide range of modular chassis and mounting solutions for PacStar® 400-Series modules. PacStar 400-Series modules can be operated in PacStar Smart Chassis, Mini Transit Cases, and Rack Mount Systems, removed in groups of enclaves and operated independently, and operated as individual modules.**

PacStar 400-Series and PacStar 200-Series modules, combined with PacStar Modular Chassis and Mounting Solutions, enable a wide range of applications from small team deployments and vehicle-mounted communications to large-scale command posts.

PacStar Modular Chassis and Mounting Solutions include:

- PacStar Universal Smart Chassis
- PacStar Smart Chassis
- PacStar VPX Smart Chassis and MOSA Hybrid Solutions
- PacStar Modular Radio Center (MRC)
- PacStar Mini Transit Case Systems
- PacStar Rack Mount Systems
- Standardized Mounting Frames to support modular smart payloads
- Pelican Case-based systems

## PacStar Universal Smart Chassis

PacStar Universal Smart Chassis delivers unmatched flexibility and reliability for today's tactical communications needs, enabling military, government, and commercial expeditionary teams to deploy the latest technology wherever missions take them. Supporting both PacStar 200-Series and 400-Series modules in a single, compact platform, the chassis is available in 8-slot and 4-slot configurations to scale from small, mobile deployments to large, multi-mission systems.

# PacStar Smart Chassis

PacStar Smart Chassis provides a mechanical and electrical standalone capability to house up to four or five PacStar 400-Series modules, and may be utilized as a standalone subsystem or as a component in a larger system. PacStar Smart Chassis mounts into multiple systems including PacStar Mini Transit Cases, PacStar Rack-Mount Frames, and custom PacStar Pelican Case-based solutions. With tool-less, quick-release features, PacStar Smart Chassis may be quickly removed for dismounted operation.

## Key Features

- Supports (4) or (5) PacStar 400-Series modules
  - 4-slot Smart Chassis (7.5 in x 6.8 in x 12 in)
  - 5-slot Smart Chassis (9.3 in x 6.8 in x 12 in)
- Every PacStar 400-Series module fits into any slot
- Provides users the ability to easily remove or change modules to support mission requirements
- Provides power to installed modules
- Integrated power supply (180/250 W for 4-slot or 180/250/350 W for 5-slot)
  - Worldwide AC input, 47 - 63 Hz, 90 V - 264 V
  - Wide-range DC input, 11.8 – 35 V DC
  - Regulated clean 50 W power output @ 12 V DC for ancillary equipment (i.e. KG-250X/XS)
- Integrated UPS with battery
  - Rechargeable battery options: DOD standard 2590 (200 Wh-rated), BB2590/U Li-ION (294 Wh-rated), NiMH BB-390B/U (117 Wh-rated, unrestricted transport)
  - Automatically recharges battery when connected to AC/DC prime power
  - Automatically switches to battery if prime power is interrupted
  - User-accessible battery compartment
  - LED indicators for battery status
- Includes an integrated cooling system
- Person-portable for standalone operation
- Operational temperature range -20 to 60 °C
  (Note: Li-Ion battery capacity degrades at 0 °C or below)


Please contact your application engineer for more details

## PacStar Modular Chassis and Mounting Solutions

# PacStar VPX Smart Chassis and MOSA Hybrid Solutions


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 VPX Smart Chassis meets size, weight, and power (SWaP) requirements unmatched by other COTS appliances of its type.

The new PacStar VPX Smart Chassis enables system designers to rapidly and cost-effectively integrate CMOSS/SOSA aligned OpenVPX plug-in-cards via the same transportation and mounting solutions used by PacStar 400-Series tactical battlefield communications products.

It shares a common mounting solution with its popular PacStar 400-Series 4-Slot Smart Chassis for PacStar 400-Series modules, widely used today in numerous U.S. Army deployments. PacStar VPX Smart Chassis integrates seamlessly with other PacStar 400-Series small form factor modules and patented interconnect, providing the best in small size, flexible power, and environmental ruggedness. This enables the user to select from the best of VPX-available cards and PacStar 400-Series modules to optimize their system delivery capability.

## Key Features

- Compatible with transport and mounting solutions for the PacStar 400-Series
- SAVE compatible frames hold two PacStar VPX Smart Chassis or mix and match with PacStar 400-Series Smart Chassis
- Add 3U VPX and SOSA hardware to existing PacStar 400-Series deployments
- Supports 5x 3U SOSA aligned VPX plug-in-cards
- Included 300 W VITA 62 Power Supply Card
- External air over conduction cooling for maximum power density
- Electronics cavity is sealed from dust and airflow
- Redundant dual-fan design for reliability
- Operational temperature range -20 to 60 °C
- Small, but powerful 7.5 in X 6.92 in x 12 in
- VPX chassis weighs only 19.1 lb (without cards)

### Slot Profiles

PacStar VPX Smart Chassis supports a wide range of VPX cards, ensuring flexibility. These include, but are not limited to:

- 3U Radial Clock PICP (SLT3x-TIM-4S16S1U2U1H-14.9.1-1)
- I/O-Intensive SBC (SLT3-PAY-1F1F2U1TU1T1U1T-14.2.16)
- 3U Data / Control Plane Switch PIC (SLT3-SWH-6F1U7U-14.4.14)
- I/O-Intensive SBC (SLT3-PAY-1F1F2U1TU1T1U1T-14.2.16)
- 3U Payload PICP (SLT3-PAY-1F1U1S1S1U1U2F1H-14.6.11)

### PacStar VPX Smart Chassis

- 3U VPX chassis enclosure that uses the same footprint as a PacStar 400-Series 4-Slot Smart Chassis
- Fits and operates in existing PacStar 4-Slot Smart Chassis mounts and transportation cases
- 5 slots (5 PIC + 1 PWR)
- Less than half SAVE size and power (300 W)
- Actively cooled (air over conduction)
- Aligned with CMOSS and CMFF Reference Architectures

## PacStar Modular Chassis and Mounting Solutions

# PacStar Modular Radio Center (MRC)

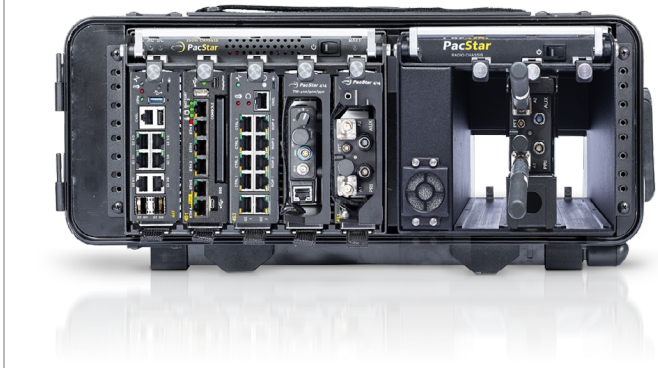
PacStar MRC bridges communications gaps between disparate systems – a problem common in military and homeland defense operations. It provides comprehensive interoperability gateways and communications management technologies in a tactical, small form factor, mobile platform.

PacStar MRC provides converged voice communications, ensuring high-quality voice communications between otherwise incompatible or non-interoperable systems.

PacStar MRC can be deployed dismounted, in forward operating bases (FOBs), command posts, ground vehicles and aircraft, as well as in upper echelons – for military, intelligence, law enforcement, and homeland security use.

## Key Features

- Radio integration compatible with most military and civilian radio models from:
  - L3Harris, Persistent Systems, Silvus Technologies, Thales, TrellisWare, Domo Tactical, and more
- Radio IP Gateway modules powered by:
  - Parraid NRG (PacStar 466)
  - Sytech RADIUS (PacStar 467)
  - SCI TOCNET (PacStar 463)
  - REDCOM Sigma (PacStar 421)
- Multiple chassis options, for up to 5 radios
  - Toolless, quick-release features
  - Wide-input DC or AC power supply
  - Radio Brackets for Radio Chassis
  - Radio Sleds for Smart Chassis
- PacStar MRC Radio Chassis and PacStar Smart Chassis can be paired together for hybrid radio and IP communications solutions
- Chassis compatible with PacStar packaging solutions (transit cases, 19 inch rack mount frames, SAVE frames)




PacStar MRC with power module


PacStar MRC with four PacStar 453 modules

## PacStar Modular Chassis and Mounting Solutions

# PacStar Mini Transit Case Systems

For transport of PacStar 400-Series solutions in scalable, dense, quick setup form factors -- with high resistance to environmental damage -- PacStar provides compact, lightweight, custom-designed Mini Transit Case Systems in two models: a carbon-fiber transit case for minimum SWaP and a fiber-reinforced plastic case for enhanced drop protection. PacStar Smart Chassis are user-removable without tools, and capable of operating outside the transit cases, enabling physical separation as required for classified enclaves.

## Key Features

- Custom-designed, molded carbon fiber transit case with wheels and retractable handle (9 in x 21 in x 14 in)
- Standard case size meets FAA carry-on size restrictions
- Holds multiple Smart Chassis with a maximum (9) module payload - e.g. (1) 4-slot and (1) 5-slot Smart Chassis
- Removable lids for operation of equipment in the transit case
- KG-250X/XS mounting points on top
- ~65 lb fully loaded

### PacStar Carbon Fiber Transit Case (CFTC)

PacStar Carbon Fiber Transit Case with Front Cover Attached

## Key Features

- Custom-designed fiber reinforced plastic case with wheels and handles (18.7 in x 20.1 in x 12.4 in)
- Holds multiple PacStar Smart Chassis with a maximum (9) module payload - e.g. (1) 4-slot and (1) 5-slot Smart Chassis
- Removable lids for operation of equipment in the transit case
- Designed to withstand MIL-STD-810G transit drop tests method 516.7 procedure IV
- ~100 lb, fully loaded

### PacStar Fiber-Reinforced Plastic Transit Case (FRTC)

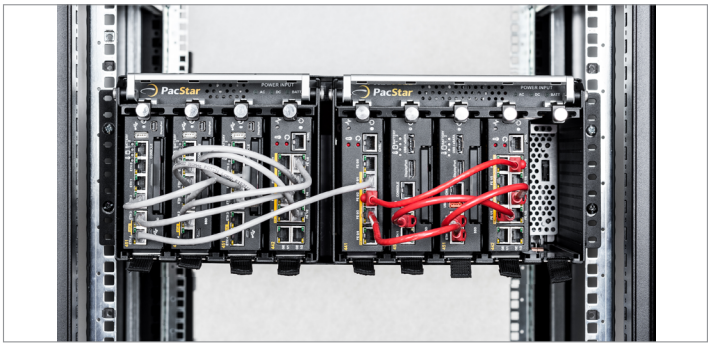
PacStar Fiber Reinforced Plastic Transit Case

## PacStar Modular Chassis and Mounting Solutions

# PacStar Rack-Mount Systems

For operations using PacStar 400-Series modules in standard 19 inch rack-mount installations such as in tents, fixed locations, or vehicles that have size, weight and power (SWaP) constraints, PacStar provides systems based on a family of rack-mount frames, shelves, and chassis.

Rack mount systems that use PacStar Smart Chassis enable PacStar 400-Series modules to be operated in fixed racks in a variety of configurations, removed from racks in groups of enclaves and operated independently, or even operated independently as individual modules. These systems enable PacStar 400-Series modules to quickly transition from a deployable configuration to a more permanent installation configuration and back again.




PacStar Modules in 19 inch rack, with Rack Mount Frame and 4- and 5-slot PacStar Smart Chassis

## PacStar 493 1-RU Rack Mount Frame (RMF)

For applications that require a limited number of modules, PacStar 1 RU RMF provides a slim form factor for up to 3 modules. This optionally includes an integrated AC/DC power supply to simplify integration.

PacStar 1 RU RMF with two PacStar 400-Series Modules and encryptor

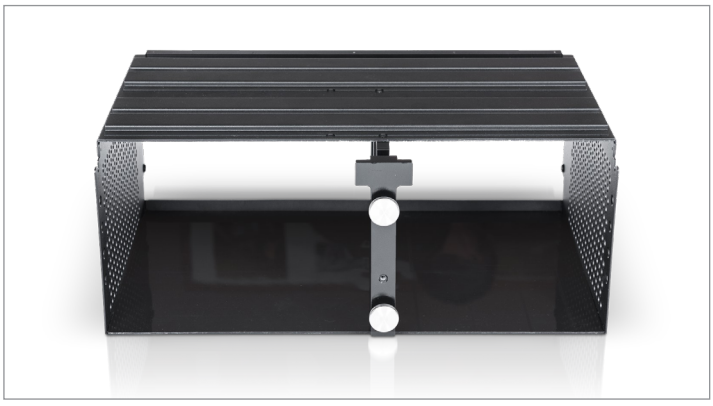
## PacStar 492 4-RU Rack Mount Frames

For applications that require high numbers of modules and/or PacStar Smart Chassis integration, PacStar provides multiple 4 RU RMF options, each with up to two toolless, removeable PacStar Smart Chassis, including:

**Light**
Designed for person-carry use cases where weight savings are critical. Mounts in 19 inch racks or PacStar CFTC transit case with up to nine PacStar 400-Series modules.

PacStar 4 RU RMF (Light)

**Rugged**
Designed for vehicle mounted applications where shock and vibration resistance are critical. Mounts in 19 inch racks or PacStar FRTC with up to nine PacStar 400-Series modules.

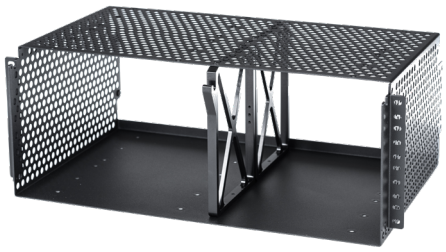


PacStar 4 RU RMF (Rugged)

## PacStar Modular Chassis and Mounting Solutions

# Standardized Mounting Frames to support modular smart payloads

**19 inch Rackmount Frame**



**SAVE Frame**

**PacStar VPX Smart Chassis Payload**

**PacStar 400-Series Smart Chassis Payload**

**PacStar Radio Chassis**

## PacStar Modular Chassis and Mounting Solutions

# Pelican™ Case-Based Systems

## PacStar TacNet 400

The TacNet 400 is a ruggedized Quick Response Kit (QRK) designed to support the rapid deployment of a flexible small team's networking suite. Consisting of a lightweight, rugged,waterproof case with integrated power electronics, the TacNet 400 is well suited for any environment. The kit provides single cable power input (AC or DC), space for up to three PacStar 400-Series modules, a HAIPE encryption device, and a Cradlepoint IBR 600/900 or similar. With slots for military radio batteries and room to prewire all equipment, the kit can be set up and running within minutes of arriving at the team's operating location.


## PacStar Custom Packaging

PacStar designs, manufactures and delivers custom suitcase-style packaging solutions meeting customer requirements. PacStar frequently utilizes proven Pelican Storm Case™ Air with custom foam cut-outs, ensuring environmental protection and proper fit, for the most demanding applications. PacStar works with customers to ensure foam designs are sufficient to meet MIL-STD transportation qualifications, and can conduct qualification as needed with certified third-party test facilities.

# PacStar Accessories


## PacStar 491 Accessory Storage Box

PacStar 400-Series module-sized storage container slides into PacStar Smart Chassis empty slots and provides storage for small accessories like cables or module clips.

PacStar 4MMC
Module Clip in Use

## PacStar 4MMC Module Clip

Slide-on locking clip for PacStar 400-Series modules that prevents snapped-together modules from rotating and unsnapping. For use with systems where modules are run outside of PacStar Smart Chassis, snapped together to share power.

## PacStar Modular Chassis and Mounting Solutions