

## PacStar 400-Series Packaging and Accessories

PacStar offers a wide range of packaging solutions and accessories for PacStar 400-Series modules, transforming individual network modules into complete modular communications solutions. PacStar 400-Series modules combined with PacStar 400-Series Packaging Solutions enable a wide range of applications from small team deployments and vehicle-mounted communications to large-scale command posts.

PacStar 400-Series packaging solutions include:

- PacStar Smart Chassis
- PacStar Mini Transit Case Systems
- PacStar Rack-Mount Systems
- PacStar Pelican<sup>™</sup> Case-based Systems

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. This modular, scalable packaging infrastructure provides flexible options for both small and larger deployments that need integrated mechanical and power infrastructure.

Based on customer requirements, PacStar will also develop custom packaging, mounting, and transport solutions.



### 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 entity 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 dismantled operation.



### KEY FEATURES

- Supports (4) or (5) PacStar 400-Series modules
  - 4-slot Smart Chassis (7.5" x 6.8" x 12")
  - 5-slot Smart Chassis (9.3" x 6.8" x 12")
- 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
- Includes an integrated power system (available with 180 or 250 watt power supply)
  - Worldwide AC input, 47 - 63 Hz, 85 V - 264 V
  - Wide-range DC input, 10 - 35 V DC
- Includes an integrated UPS with two battery options
  - DoD standard 2590 Li-Ion rechargeable battery, 200 watt-hours rated
  - NiMH BB-390B/U rechargeable battery, 117 watt-hours rated
  - Automatically switches to battery if prime power is interrupted
  - User-accessible battery compartment
  - LED indicators for battery status
- Includes a clean power 12 V DC output port (50 watts) for ancillary equipment
- Includes an integrated cooling system
- Person-portable for standalone operation
- Operational temperature range -20C to 60C (Note: Li-Ion battery capacity degrades at 0C or below)

## 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.

### PacStar Carbon Fiber Transit Case (CFTC)



*PacStar Carbon Fiber Transit Case with Front Cover Attached*

#### KEY FEATURES

- Custom-designed carbon fiber transit case with wheels and handle (9" x 21" x 14")
- 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 lbs. fully loaded

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



*PacStar Fiber Reinforced Plastic Transit Case*

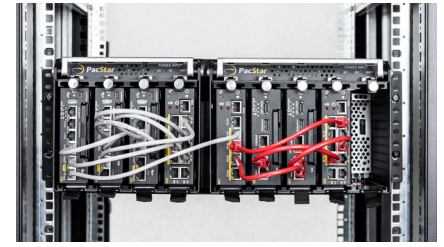
#### KEY FEATURES

- Custom-designed fiber reinforced plastic case with wheels and handles (18.7" x 20.1" x 12.4")
- 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
- Designed to withstand MIL-STD-810G transit drop tests method 516.7 procedure IV
- ~100 lbs., fully loaded

# PacStar Rack-Mount Systems

For operations using PacStar 400-Series modules in standard 19" 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" 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 Module 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 tool-less, removeable PacStar Smart Chassis, including:

- **Light** – designed for person-carry use cases where weight savings are critical. Mounts in 19" racks or PacStar CFTC transit case with up to 9 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" racks or PacStar Fiber-Reinforced Plastic Transit Case (FRPC) with up to 9 PacStar 400-Series modules.



*PacStar 4 RU RMF (Rugged)*

- **Standardized A-Kit Vehicle Envelope (SAVE)** – mounts in vehicles that conform to U.S. Army SAVE standards, with up to 8 PacStar 400-Series modules (not 19" rack compatible).



*PacStar SAVE Mount Frame*

## Pelican™ Case-Based Systems



### PacStar TacNet 400

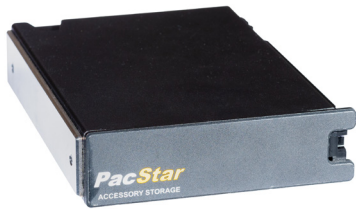
The TacNet 400 is a ruggedized Quick Response Kit (QRK) designed to support the rapid deployment of a flexible small team's networking suite. Consisting of a lightweight, rugged, waterproof case with integrated power electronics, the TacNet 400 is well suited for any environment. The kit provides single cable power input (AC or DC), space for up to 3 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™ and 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. See the PacStar Custom Packaging Solutions datasheet for more details.

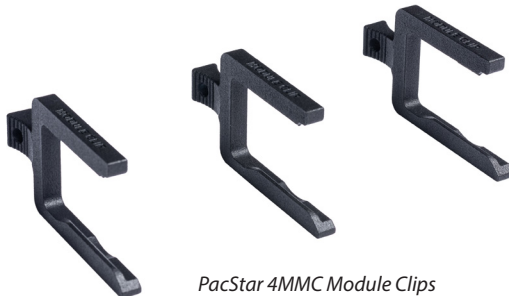
## PacStar 400-Series Accessories



*PacStar 491 Accessory Storage Box*

### 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 Clips*

### 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 4MMC Module Clip in Use*



## Example PacStar Vehicle Mount Network Packages

PacStar 400-Series modules and packaging solutions enable a wide array of vehicle-mounted use cases, including ground, air, and surface and undersea vehicles, including manned or robotic and autonomous vehicles. Below are just a few examples.

### PacStar 400-Series Network Package on JLTV



### PacStar 400-Series Network Package on MV-22 Osprey

System granted a certificate of flight worthiness



### PacStar 400-Series Network Package on MQ-1C Gray Eagle Unmanned Aircraft



PacStar products are covered by multiple patents. Additional patent(s) pending. See [www.pacstar.com/patents](http://www.pacstar.com/patents) for details. Extensively tested to MIL-STD by independent labs. Reports available on request. See [www.pacstar.com/testing](http://www.pacstar.com/testing).