

# TCB-IPR COMM PACKAGE

RUGGED FIELD SYSTEM with Global PTT™



- All Metal Design ensures rugged and reliable operation in moist/sandy environments
- Sealed handset connector design utilizing standard U-183/U-283 audio connector
- Secure IP based PTT device that least cost routes based on available data source
- Unlimited Channels and Talk Groups (contains groupings of channels)
- Supports Four 2-Way radio interface controller (TCB-IP4100) for global access/control
- Seamless interface between 2-way radios and Global PTT cloud based controller
- Web management tool enabling global configuration and deployed units
- Stunning from the 1/4 VGA, Color TFT Active Matrix Liquid Crystal Display (IPR5100)
- End to End encrypted to FIPS 140-2 compliant AES 256 bit with user loadable keys
- Integrated GPS for unit location and tracking with external antenna
- Optional integrated cellular radio for GSM, HSPA+, EVDO and other cellular networks
- Optional Globalstar, Iridium or Thuraya Satellite module for global PTT communications



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# Specifications



## Connections:

- **DC Power and Speaker:** IP68 sealed 4 pin Amphenol connector supporting external speaker / power
- **External SMA/TNC connectors:** IP67 sealed supporting the external RF antenna options
- **Network/Microphone Connectors:** IP68 sealed Amphenol RJ45 for network and U-283/U for handset
- **External GPS antenna:** IP67 sealed SMA supporting the external GPS antenna for tracking
- **USB Port:** IP68 sealed Samtec connector supporting user insertable USB devices for field updating the units firmware and/or loading user AES-256 bit encryption keys. When utilizing the hardware encryption module the USB port is hard-wired to the hardware crypto-module enabling key loading/management

## Specifications:

- **Power:** +8V ~ +60V DC, 1.5 Amp maximum @ 12VDC input.
- **POE Power:** ±24V ~ ±48V, 15W class device, connection through RJ-45 Network connector
- **External Speaker:** 10W Class 'D' balanced audio output driving an 8 Ohm speaker
- **Handset:** The H-250/U lightweight noise canceling handset designed to meet US military specifications MIL-PRF-49078. It is interchangeable with the H-189/GR (IPR5100)
- **Interfaces:** Audio processing interfaced based on the Tactical Communications Bridge TCB-iP2
  - TCB-IP4100 contains two TCB-iP2 interface modules that are available from the network ports
- **Dual Network Ports:** 10/100M 10 base T connection (*TCB-IP4100 has dual ports, IPR5100 can connect through the bottom unit*)
  - Integrated four port switch supporting the two internal controllers and two external user ports
- **GPS/Glonass:** Integrated GPS/Glonass receiver based on the Telit SL869 chipset.
  - An external antenna utilizing external SMA connector is attached to the front of the unit.
- **Processing:** 600 MIPS based Analog Devices Blackfin running uC Linux Operating System
- **Display:** 320 x 240 pixels 65K colors TFT Active Matrix display
- **VoIP CODECS:** Speex, g.711 a/uLaw, g.729 (lower bit-rate offerings in development)
- **VoIP Bandwidth:** 8 kbps minimum bandwidth assuming 500mS data packets (2 kbps in development)
- **Software Encryption:** AES-256 bit FIPS 140-2 compliant software module with user loadable keys
- **Physical Size:** 9.4 in (239mm) W x 5.2 in (132mm) H x 6.8 in (173mm) D: Weight 128 oz (3629 gram)
- **Temperature:** 0°F ~ 150°F (-20°C ~ +70°C), 95% Relative Humidity

## Options:

- Internal EVDO, HSPA+ and LTE cellular options are available.
- Internal 868 Mhz or 902 Mhz secure digital radio enabling off-network
- Internal Globalstar, Iridium or Thuraya satellite interface enabling FIPS secure, satellite operation