

# TCB-IP4100

## TACTICAL COMMUNICATIONS BRIDGE®

### RUGGED FIELD UNIT with Global PTT™



Global PTT™ is the ability  
for an IP Communicator to  
communicate Globally with  
any other Global PTT™  
enabled technology

## SECURE FOUR RADIO TO IP TRANSPORT COMMUNICATIONS INTERFACE CONTROLLER

- All Metal Design ensures rugged and reliable operation in moist/sandy environments
- Sealed radio interface connector design utilizing standard U-183/U-283 audio connector
- Secure IP based PTT device that least cost routes based on available data source
- Converts 2-way Radio devices into a secure IP stream enabling wide area control
- Provides radio to radio connection without master server for standalone operation
- Sealed USB ports to load encryption keys into each individual interface
- End to End encrypted to FIPS 140-2 compliant AES 256 bit with user loadable keys
- Exportable to most countries without the need for any export restrictions
- No Static IP's required when operating over VTrunk™, Link's Cloud Based Routers
- 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



link  
communications®

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# Specifications



## Connections:

- **DC Power and Speaker:** IP68 sealed 4 pin Amphenol connector supporting external speaker / power
- **External SMA connectors:** IP67 sealed supporting the external RF antenna options and GPS
- **Network Connectors:** IP68 sealed Amphenol RJ45 supporting Ethernet
- **Radio Connectors:** 5/6 pin U-283/U connecting 2-Way radios into the controller.
- **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, 1.0 Amp maximum @ 12VDC input
- **Dual Network Ports:** 10/100M 10 base T connection
  - 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.
- **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
- **Processing:** 600 MIPS based Analog Devices Blackfin running uC Linux Operating System
- **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 2.7 in (69mm) H x 6.82 in (173mm) D: Weight 56 oz (1588 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