Bittium

Bittium Tough VoIP Field Phone is a tactical VoIP phone for advanced military communications. It easily integrates to both existing and future tactical communications IP infrastructures, both wireless and wired.

Bittium Tough VoIP Field Phone is a SIP V2 VoIP client that provides interoperability with other SIP clients and server implementations available in the defense market. The product meets the requirements of tactical environments where network services may not be present or where the network topology is constantly changing (e.g. MANET). Bittium Tough VoIP Field Phone incorporates tactical mode functionality that enables introduction of voice over IP services in dynamic self forming networks without servers.

Bittium Tough VoIP Field Phone supports rapid deployment and is intuitive and easy to operate – basic operation does not require technical training. Special attention has been paid to optimize bandwidth utilization and tolerance for network latencies. Bittium Tough VoIP Field Phone provides high quality audio even in very narrowband digital channels with their low bit rate codecs.

A unique feature of the Field Phone is that it provides cost optimized solution for deploying last-mile long distance IP network over conventional field wire. Field Phone provides Ethernet connectivity that can be utilized for accessing the created field network through the unit.

Benefits

› Voice services over IP capable data radios and links
› Rapid deployment field communications
› Can operate independently without SIP server in tactical mode
› No service requiring parts such as battery inside the unit, powered through Power over Ethernet (PoE) or vehicular power (10 – 32 Vdc)

Applications & installations

› Infantry communications
› Vehicular and weapon platforms
› Naval applications
› Airbases
› Command posts
› Shelters
› Service depots
› Field hospitals

FOR MORE INFORMATION, PLEASE CONTACT:

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Bittium Tough VoIP Field Phone™
Specifications

Features

› Push-to-talk (PTT) functionality

› No service requiring parts such as battery inside the unit, powered through Power over Ethernet (PoE) or vehicular power (10 – 32 Vdc)

› VoIP calls through SIP server or Bittium Tough VoIP clients can operate independently without SIP server in a tactical mode

› Dynamic phonebook containing a real-time list of existing and available Tough VoIP users

› Each phone is configured for a specific operational role of the user – Personal Role Phone (PRP)

› Integrated speaker for call monitoring

› Phone features including quick dials, number dials and phonebook

› Configuration through the phone's user interface or web user interface

› Remote management through web user interface

› Automatic adjustment of the display and keypad brightness for optimal use in the prevailing conditions. Suitable for operating in total darkness

› On/Off hook recognition for tactical handset

› On/Off power switch

› Integrated strain reliefs (2) for field wire

Interfaces

› 100Base-T Ethernet with Amphenol RJF TV (Coding A) PoE input (IEEE 802.3af class 3 PD), Amphenol RJF (Black) RJF2SA5BZC

› **Field Wire**
Two channels, one pair SHDSL.bis, spring-loaded binding post

› **Handset/headset audio**
6-pin U-283/U with separate PTT pins

› Grounding point

› **DC input (10–32 Vdc)**
3-pin Glenair ITS3102

Display

› Large, crystal clear and robust OLED display

› Size: 2.7 inches diagonal

› Resolution: 128 x 64 pixels

Keypad

› 20-button keypad with numbers, letters and special characters

› Arrow keys for menu browsing

› Confirm and cancel buttons

› Keypad lock

Technical specifications

› Fully integrated IP phone software solution

› **Standard networking support**
IPv4, TCP, UDP, ICMP, ARP

› **Management and control**
User Interface and Web-based management

› **VoIP protocol stacks**
SIP (RFC 3261, RFC 3265, RFC 3264, RFC 2782) SDP (RFC 2327) – RTP/RTCP (RFC 3550) Adaptive Jitter buffer

› **DHCP option for SIP**
RFC 3361 DNS support for SIP

› **Voice codecs**
G.711; MELPe 2400bps, G.729 A/B

› **Configurable dual PTT signaling**
RFC2833
SIP INFO packets
Inband audio tones

› **Type of Service (ToS)**
Delivering packet precedence (i.e. priority) in network traffic, thereby ensuring low delay, high throughput and high reliability

› **Remote SW update**
Manual software upgrade through Web-based management

› **Telephony applications**
Multi party conferencing through SIP server
Multi party push-to-talk without server (tactical mode)
Point-to-point call with/without SIP server

› **Environmental and EMC standards**
MIL-STD-461F Ground,
Army MIL-STD-1275D:
Vehicle equipment, characteristics of 28 Volt DC MIL-STD-810G

› **Power consumption**
10 W (with both SHDSL and ETH active)

› **Operating temperature range**
- 40 °C / +55 °C

› **Dimensions**
207 x 291 x 52 mm, with pads and strain reliefs, excluding handset

› **Weight**
1,65 kg without handset

› **Quality standards**
ISO9001
ISO14001
AQAP 2110 ed. 3

› **Declaration of conformity**
CE, FCC

Accessories

› Wall mount plate, bag, cables, batteries, chargers, AC/DC power supply

This product is covered by at least one of the following patents and patent applications: US8468382, EP08761648.8, CA2719285, IL209153