Mini-Secure Communications Controller (Mini-SCC)

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Trident Systems Incorporated
www.tridsys.com
Armed forces and first responders regularly encounter radio systems that do not communicate with their own radios.
Mini-SCC Product Overview

**Technology**
Man-portable audio cross-banding of disparate communications devices including Tactical Radios, Land Mobile Radios (LMR), (HF, UHF, VHF), SATCOM, public safety radios, partner nation radios, and cellular networks.

**Need**
- Supports audio interoperability of disparate radio networks
  - Regardless of radio type, frequency, hopset, encryption key
- Provides voice bridge between Joint Services, Partner nations forces and Non-Government Organizations (NGO).

Meets the NSA tactical voice bridge requirements Fielded by 8th Army (USFK) & USMC (in USMC Program of Record)
Radio interoperability of disparate networks
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Radio interoperability of disparate networks
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1. Connect one of each radio to a single Mini-SCCv1.1
2. All radios networks are interconnected – configuration can be tailored

Audio cross-link of cell phones, partner nation radio networks, US radio networks & local operator
• Handheld Size
• Multiple power options
  • Including AA batteries
• Fully Configurable
• MIL-STD-810, -461E, IP67 (waterproof)
Cross-Link Flexibility

All Analog Radio Nets Tied

Supports one-way comms

Multiple Analog Radio Nets

System can be configured (and saved) for numerous connectivity permutations
Key Features

• Single unit: easy-to-use integrated solution
• Radio independent; not tied to manufacturer; works with intercoms
• Man-portable form-factor – (1.55”x 4.15”x 6.25)
  • Power: AA Batteries, BA-5590 equivalent, AC supply
  • Configurable front panel buttons for rapid profile changes
  • Configurable Infrared or Visible LEDs
• NO Software to load (any device with web-browser can configure)
  • Can be re-configured over a network via web-browser if desired
• NO Computer required for operation (runs as previously configured)
Radio Interfaces

- Audio cross-link of heterogeneous military tactical radios, cellular phones, other military radios, public safety radios
  - Tactical & Land Mobile Radios
    - Israel: i.e. CNR-710, CNR-9000 and other variants
    - Republic of Korea (ROK): PRC-999K (RT-314K), PRC-950K
    - Japan: Broadband Multipurpose Wireless (BMW) Radio
  - Cellular (Android, iPhone)
  - Public safety radios (e.g. Motorola DP 4401, XTS & APX Series, PR1500, MT1500, Harris XL P Series, BK KNG-P Series, Hytera PD702, PD782, PD785, PD982, and various ICOM radios)

Radios above are only examples; The Mini-SCCv1.1 supports virtually any radio.
New Radio Interfaces

• If a new radio (with uncommon connector) is identified:

  • Use ‘Fly-away Cable Kit’ to build field-prototype cable

  • Provide radio details to Trident for development of sample radio interface cables

The handset connection & pinout are all that are needed to build a new radio interface cable
Mini-SCCv1.1 Specifications

SWaP:
- Size: 6.28” x 1.55” x 4.15” (excluding connectors)
- Weight: 2lbs 5oz (with batteries)
- Power: 6-36VDC input
  - 8 AA L91 batteries (12+ hour runtime)
  - COTS BA-5590 power adapter
  - AC Adapter

I/O:
- 3 Audio Channels + 1 H-250/U Handset
- 1 Data Port
  - 1 USB Port
  - 1 Serial Console
  - 1 Ethernet Port
- Configurable front panel buttons
  - Rapid profile changes
- Configurable Infrared and Visible LEDs

EQT:
- Tested to IP67 Water Ingress (1m)
- Tested to MIL-STD-461F, MIL-STD-810G
System Software

- Provides web browser GUI to control and monitor audio cross linking capabilities
- Accessible via Android and iPhones over secure Wi-Fi
- Supports multiple permission levels with secure login
- Audio level adjustments, muting, and cross linking
- Built In Test (BIT)

Software is for advanced configuration; not required for operation
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