



IOC -5000 TACTICAL SERIES INTER OPERATE CONTROLLER

IOC-5000 T- Series complete with IOC Controller Software



Benefits

- Modular tactical interoperability system employing proven ACU Technology.
- Small, rugged design suitable for tactical and rapid deployment applications.
- Sophisticated DSP algorithms provide adaptive hybrid, VOX, VMR (voice modulation recognition), and noise reduction.
- Deployable as an above or below ground repeater. Radios can be extended up to 1000' using optional extension cables.
- Interface cables for more than 175 popular radio models can be ordered from Raytheon.
- Top cover display provides visual indication of current system interconnection status.
- ACU controller software provides full system status and control from a PC, locally or remotely over an Ethernet network.
- Provides six (6) connections over three (3) independent nets.



IOC5000-T Series Overview

The IOC5000-T series provides tactical packaging for the proven IOC-1200 series modular interoperability system. The flexible control and status monitoring options of the system make the ACU products truly flexible and versatile. Interconnections between any of the system radios and telephones (and a local operator) can be initiated and terminated in a variety of ways:

- Local operator using the system keypad
- DTMF signalling from radios or consoles
- Using the IOC Controller software interfaced to the IOC5000 serial or Ethernet control ports

The six devices interfaced to the IOC5000-T series (radios, telephones, and local operator) can be interconnected in any combination from three nets of two users, to a single net with all six users connected together.

The IOC5000-T series keypad, handset, speaker, and LEDs allow full local control and monitoring of the interoperability system. The IOC5000-T series controller and WAIS Controller software provide multipoint control and monitoring capability over a network. The control software and DSP algorithms allow the IOC5000-T series to be optimized for best performance with connected radios or other equipment.

All of the interface features that made the 19'rackmount IOC-1200 the industry leader in interoperability solutions are available with the ACUT, including: a choice of VOX, VMR, or Hardwired COR, Digital Audio Delay, and COR Sampling to ensure that a false key or noisy signal can't tie up a net.

IOC5000-T series products offer a truly modularized approach to controlling and interconnecting various types of communications systems. The basic system components are interface modules, each designed to connect a specific communications medium. The IOC5000-T series interface modules are the same as those used in the IOC-1200 C series, and the internal and control software is likewise cross compatible between the two products.

The IOC5000-T series provides all of these features in a small rugged unit suitable for tactical or vehicular use and rapid deployment. Weighing in at less than eight pounds, the IOC5000-T series incorporates a drip proof top cover, quick connect/disconnect CPC connectors for radio interfacing, and a keypad, speaker, and handset for local control and monitoring. The unit is DC powered, allowing easy battery or vehicular use. It may also be powered from AC using the adapter provided.

Capabilities

- Voice prompts and LEDs provide connection status for each port and help guide operation
- Can interconnect radios in any band including HF, VHF, UHF, P25, 800Mhz, and Nextel
- Radio templates for supported devices provided in ACU Controller software
- Connection to a Wide Area Interoperability System using the WAIS Controller Software
- External audio connectors for a variety of handset and headset support

Applications

- Mobile
- Transportable Pelican Case



Photo caption: Left: An ACUT rear view showing connectors

Right: ACUT in transportable Pelican case featuring power supply, battery, power cables, manual, and storage area for radio cables and accessories.

MISSION SUPPORT

- Optional extended warranty with 24/7 support (additional charge)

DSP-2 RX Audio Input

Input Impedance: Balanced & Unbalanced 600 ohms or 10k ohms

Input Level: 26 dBm to + 10dBm, adjustable

DSP-2 TX Audio Output

Output Impedance: Balanced or unbalanced 600 ohms

Output Level: 20dBm to +11dBm, adjustable

Frequency Response: 100 to 3200 Hz + 2dB

Distortion: Less than 0.2%



DSP-2 COR Input

Input Impedence: 47k ohm pull up to +5V
Polarity: Active low or high, selectable
Protection up to: + 100 VDC

DSP-2 P Output

TT Output: Open drain
Polarity: Active low or high, selectable
Maximum Sink Current: 100 mA
Max Open Circuit Voltage: +60 VDC

PSTN1 Telephone Interface

Telephone Line Levels: Adjustable 24 dBm to 0 dBm in 3 dB steps
Hybrid Type: DSP adaptive hybrid; 30 dB broadband balance
Frequency Response: 100 Hz to 3200 Hz + 2 dB
VOX Threshold: Selectable 19, 16, 13, and 10 dB relative to telephone line level
VOX Hangtime: Selectable 0.5, 1.0, 1.5, and 2.0 seconds

General/Environmental

CPM Serial Port: RS232 DCE connector (female DB9). Baud Rates:1200, 2400, 4800, or 600, 115,200 software selectable
Chassis Mounted: Speaker on/off switch, Power on/off switch, charger switch, CPC connectors, 1/8"headphone jack, volume control, PTT LED, Fault LED, Handset jack, 3x4 keypad
DC Input Power : +11 to +15 VDC @ 5A nominal
Size: 6.75" H x 6.75"W x 10.5"D (17.2 x 17.2 x 26.7cm)
Temperature: Operating: 20 to +60 degrees C. Storage: 40 to +85 degrees C
Humidity: Up to 95% @ 55 degrees C.
Shock: MILSTD810D, method 516.3, procedure VI
Vibration: MILSTD810D, method 514.3, category

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