# Technical Specifications

**GENERAL CHARACTERISTICS**

**Transmission**

- Voice: Digitised voice, 64 Kbps
- Data: 50 to 115200 bps
- BITE: On power on, continuous during operation

**Power Supply** Primary Power Input 18-30 VDC

**External Loudspeaker Interface**

- 4W @ 8Ω with Volume Control
- Frequency Range 300-3400Hz
- Total Harmonic Distortion less than 1%
- Signal to Noise Ratio (NSR) 70 dB

**Headset Interface**

- Microphone Input
- Earphone Output, 70mW @ 600Ω per Channel
- Frequency Range 300-3400Hz
- Total Harmonic Distortion less than 1%
- Signal to Noise Ratio (NSR) 70 dB
- PTT Switch (TTL)

**SYSTEM SERVICES**

**Call Services**

- Emergency Call
- Conference Call
- Local Closed Groups
- Radio Control Calls
- Radio Conference Calls

**Data Services**

- Dynamic Channel Allocation
- Status Messaging
- Text Messaging
- Video Transfer Capability

**TECHNICAL CHARACTERISTICS**

**Unit Weight** Less than 3.0 Kg (without mounting kit)

**Dimensions** Height: 150 mm
Width: 155 mm
(including mounting holes)
Depth: 99.6 mm

- Display with adjustable backlight for message and control information
- Night Vision (NVIS) Compatible Function Keys
- Power Up and Extended Built-In-Test
- Dual Quick Release Circular Audio Receptacles

**ENVIRONMENTAL CHARACTERISTICS**

As per MIL-STD-810E

| | |
|---|---|
| **Operating Temperature** | –30°C to +65°C, Methods 501.3 and 502.3, Procedure II |
| **Relative Humidity** | Method 507.3, Procedure II |
| **Water Tightness** | Method 512.3, Procedure I |
| **Salt Corrosion** | Method 509.3, Procedure I |
| **Vibration** | Method 514.4, Procedure I, Category 10 |
| **Mechanical Shock** | 40 g, 6-9 msec, Method 516.4, Procedure I |
| **EMI / EMC** | As per MIL-STD-461C/D |

**MAINTENANCE REQUIREMENTS**

No Preventive Maintenance Required

**SYSTEM RELIABILITY** CU 100
MTBF: 26.500 Hours

**EXTERNAL INTERFACES**

The CCU 100 provides standard MIL-C-38999 and military quick coupling receptacles for all the external interfaces to improve reliability as well as EMI/EMC and environmental strength.

**Audio and Discrete I/O Interfaces** The CCU 100 can accept a range of different devices including:

- Headset with integrated microphone and PTT Switch
- Hand microphone with integrated PTT
- Foot-operated PTT
- External Loudspeaker

**Network Interface**

2Mbit-Packet Switching

**System Interface**

- Ethernet 10/100 Base T
- Field Telephone
- PSTN

*Specifications subject to change without prior notice*

09.02

INTRACOM

190 02 PEANIA, ATTIKA • ATHENS, GREECE
TEL.: (+302 10) 667 1646, (+302 10) 667 9000 • TLX: 214087, 219849 INTR
FAX: (+302 10) 664 5103, (+302 10) 667 9001
**email: defense@intracom.gr**
**www.intracom.gr**

PRODUCT SERIES

4

*Tactical Communication Systems*

# Wideband Intercom & Secure Packet Radio

WISPR

INTRACOM

WISPR CCU 100


INTRACOM

*HELLENIC TELECOMMUNICATIONS AND ELECTRONICS INDUSTRY*

PRODUCT SERIES

4

*Tactical Communication Systems*

# Wideband Intercom & Secure Packet Radio




## Military Intercommunication Requirements

***Today and the Future***

Modern communication requirements in combat & combat support vehicles are not constrained to just simple intercommunication between the members of the crew. Information and Data exchange along with communication with external support forces compose vital functions that enhance the field capabilities and survivability of the crewmembers and vehicle. In this context of enhanced capabilities, WISPR comes to fulfill the military need for a modern, digital, fully programmable intercommunication system, with capabilities of dynamic adaptation to field requirements.

## New Generation in Intercommunication Technology

WISPR is a novel, state-of-the-art communication system for the 21st century, with applications in all types of armoured and shelter carrying vehicles. The naval version of WISPR BDCS 100 is also available for applications in small crafts. Along with voice transmission, which is the main function of an intercom system, WISPR provides for high-speed data transmission, hence giving the users the ability of valuable information exchange.

## Chain-of-Command Support

The advanced software design of WISPR enables functionality in accordance with a defined chain of command authority and control in all of its functions. This facility is enhanced with automatic system reconfiguration, according to the hierarchy plan, providing adaptation in real-time, according to field operation events.

## Flexible Noise Reduction Capability

The highly sophisticated noise reduction algorithm utilised in WISPR provides dynamic noise reduction, resulting in high quality voice transfer. In addition, the algorithm is easily adaptable to the particular noise profiles of the various vehicles.

## Wireless Lan Capability

WISPR provides a Wireless Local Area Network (WLAN), which is used for digital information exchange, employing spread spectrum technology. This provides an independent, highly undetectable means of communication between vehicles, particularly useful during “Radio Silence”.

## Constant System Availability

Using Data Bus redundancy, Modular Design and Transparent Data Transfer WISPR provides high MTBF and maximises operational availability. The system continues to operate uninterrupted even after any subsystem failure.

## Flexible Programmability

The system can be rapidly reprogrammed on the field, using access key codes, depending on the

dynamically evolving needs of training or field operations. System programming is an easy and rapid procedure for the operator through structured user-friendly menus.

## Field Exercise Support

The system is designed for interconnection with digital storage devices for recording of voice communications. This potential facilitates the analysis of the data gathered during exercise periods.

## Image Transfer Support

Due to the High Data Rate transfer, the system is capable of wireless image transfer and provides the means for interconnection with image display units.

## Battle Management System Interoperability

The system Hardware and Software architecture is designed to provide full interoperability with Battle Management Systems. WISPR provides the tactical advantage of maintaining the full operation of the BMS systems between vehicles via its WLAN during general “Radio Silence”.

## Flexible System Configuration and Expandability

WISPR may be installed in different system configurations depending on the type of platform to be equipped and the particular operational requirements for the specific application. The system configuration and future system expansion can be implemented as a simple plug-and-play operation in all possible WISPR configurations due to modular design architecture.

## High Safety of Data Transmission

The technology used enables high undetectability of wireless LAN transmissions, enhanced with data encryption and anti-jamming capabilities. The system provides a highly sophisticated encryption algorithm and also the facility for the utilisation of customer specific encryption algorithms.

## Radio Remote Control

The user is provided with the facility to remote control radios through the CCU 100. Using the WISPR WLAN, the


system provides the facility of wireless remote control of other vehicle radios.

## Ease of Use

The most frequently used functions are implemented with dedicated function keys, enabling even separation between “listen” and “talk” operations. The tricolor keypad provides visual recognition of the function status.

## Always at the Edge of Technology

Firmware and application software uploads will keep WISPR at the fore front of technology, providing future upgrades without the need for intervention on hardware.