

# IISR-500

Integrated Intra Squad Radio

*Full duplex  
voice and  
data radio  
conferencing  
is now  
a reality!*



## **Integrated Intra Squad Radio**

Integrated Intra Squad level tactical conference communications for improved mission coordination

Talla-Com's Integrated Intra Squad Radio (IISR) provides self-synchronized, wireless conferencing communications as well as inter-connectivity to long-range VHF/HF networks. The IISR is designed to specifically improve the coordination and mission effectiveness of ground, air, and naval forces operating in demanding operational environments—e.g. urban warfare, field ambushes, combat ships, etc.—where every bit of information can mean the difference between mission success or failure. Packing powerful voice and data communication capabilities into a compact personal unit, the IISR is an essential building block for any military or homeland defense modernization program.

## **Features**

- Full duplex/3 simultaneous speakers/unlimited receivers
- Immediate, more effective operational communications
- Encryption available
- Soft controlled radio (SCR)
- No single-point of failure ensures reliability
- Communication range: 800M open area; 300M urban & dense vegetation areas
- Whisper function for covert operations
- 15 network channels
- Voice activated messages and alerts
- Sophisticated data communication protocols
- Full compliance with MIL-STD requirements
- Wireless PTT
- Size: 4.3"H x 2.6"W x 1.6"D
- Weight: <1 lbs.

• **3 simultaneous speakers/unlimited listeners**

• **Self-synchronized**

• **Receive voice & data at the same time**

• **Lightweight**



### Immediate, more effective operational communications

The IISR's unique full-duplex conference communication capability enables up to three IISR speakers to simultaneously confer and coordinate operations, with an unlimited number of IISR stations able to listen. As a result, crucial operational decisions can be made according to real-time information, improving coordination and helping prevent fatal errors such as friendly-fire incidents.

### Avoiding a single-point-of-failure ensures highly reliable radio communications

Based on Talla-Com advanced and proven self-synchronizing technology, the IISR features dynamic network architecture that eliminates the need for a central control unit or master station, thereby reducing communication vulnerability to a minimum.

### Intra-team and inter-team communications

The IISR radio's headset includes two PTT buttons which enable the operator to: 1. immediately access the local IISR network to pass instructions and information to other team-members; 2. connect to external long-range tactical VHF/UHF/HF radio networks.

### The leading communication choice for soldier modernization programs

The IISR is the ideal solution for armed forces looking to provide their dismounted soldiers with the most advanced voice and data communication technology in order to ensure superior operational mobility and capability.

### Technical Specifications

<b>Frequency</b>	400 to 450 MHz*
<b>Channel Spacing</b>	100 kHz
<b>Modulation</b>	Data: $\pi/4$ DQPSK Voice: CVSD
<b>Preset Channels</b>	15
<b>Frequency Stability</b>	$\pm 3$ ppm
<b>Built-In Test (BIT)</b>	On-line and operator initiated
<b>Power</b>	3.6V nominal Li-ion rechargeable battery or AA Batteries
<b>Operation Hours</b>	At 1:2:17 Tx: Rx: Stby: 12 hours
<b>HxWxD</b>	4.3" x 2.6" x 1.6"
<b>Weight (with battery)</b>	<1 lbs.
<b>Dynamic &amp; Mechanical</b>	Per MIL-STD-810E
<b>Special features</b>	Full duplex and conference Up to 3 simultaneous speakers, unlimited number of listeners

### Technical Specifications Continued

<b>Communication range</b>	800M typical in open area; 300M urban & dense vegetation areas
<b>Synchronization</b>	Self and seamless (no master station); Auto resynchronization capability
<b>Late entry</b>	No special procedures required
<b>Programming</b>	Using a PC
<b>Environmental</b>	
<b>Operating Temperature</b>	-20°C to +55°C
<b>Relative Humidity</b>	95%
<b>Immersion</b>	0.2M of water for 2 hours
<b>Receiver</b>	
<b>BER</b>	10 <sup>-1</sup> @-107dBm
<b>SINAD</b>	10db@-107dBm
<b>Transmitter</b>	
<b>Power Output</b>	250mW min.
<b>Optional Features</b>	
<b>FFS (Free Frequency Search)</b>	A special module which automatically scans and selects the optimal communications frequency in order to minimize interference.
<b>Encryption</b>	As per customer specifications
<b>Radio software</b>	Can be configured to meet customer's specific operational requirements.
<b>Data Communications</b>	
<b>Type</b>	Asynchronous
<b>Rate</b>	9.6 kbps**
<b>Interface</b>	RS-232

\*Customer defined frequency bands

\*\*Other data communication rates available upon customer's request

**All specifications are subject to change without notice 4.18.05**