# SKYHOPPER TACTICAL

*Wearable and Secure Communication for Dynamic Field Operations*

The SkyHopper Tactical is a wearable Software-Defined Radio (SDR) that enables tactical teams to share real-time data, video, and telemetry with their unmanned systems-drones, robots, and loitering munitions-through buildings, terrain, and complex environments where line-of-sight breaks. Operating across 2.32.7 GHz with cognitive frequency management, it maintains stable control links between operators and unmanned assets even in contested environments.

The radio applies Secured Autonomy™ principles with ICE - Immunity, Cybersecurity, and Encryption - software to protect command links, telemetry, and mission data in contested RF environments. The wideband SDR architecture supports Point-to-Point, Multipoint, Mesh, and Relay modes, automatically extending coverage as teams maneuver or unmanned platforms require additional range. Low-latency performance ensures responsive control of unmanned systems throughout the mission.

Built to MIL-STD-810 standards with IP67 protection, the unit withstands harsh field conditions in a compact, body-worn or tripod-mounted form factor. Field-swappable PRC-148 batteries and external power options enable extended missions, while glove-operable controls ensure practical operation under tactical conditions. The system is network-compatible with all SkyHopper variants, integrating seamlessly into existing deployments.

## KEY FEATURES

- Wideband SDR supporting 2.3-2.7 GHz operations
- Point-to-Point, Multipoint, Mesh, and Relay modes
- Low-latency architecture for real-time unmanned system control
- ICE (Immunity, Cybersecurity, Encryption) software suite
- Network-compatible with all SkyHopper variants
- Designed & built according to MIL-STD-810 ruggedization
- IP67 protection
- External power interface with PRC-148 battery support


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## HIGHLIGHTS

- **Body-Worn Tactical Design**
- **Jamming Resilience & Cyber Protection**
- **Real-Time UxV Control**
- **Adaptive Mesh Networking**
- **Tactical Power Integration**

## SPECIFICATIONS

| Radio and Modem | |
|---|---|
| **Network Topologies** | Point-to-Point, Point-to-Multipoint, Mesh, Relay (Repeater), scalable number of viewers |
| | Multiple Synchronized Point-to-Point Links |
| **Modes of Operation** | Broadcast, Multicast, Unicast |
| **Sensitivity** | Max -101dBm @4.2 MHz |
| **Diversity Support** | MIMO 2X2; Tx & Rx Diversity |
| **Transmission Technology** | OFDM, TDD |
| **Encryption** | 128 AES-Standard Package<br>256 AES-Optional |
| **Frequencies** | 2.3 GHz-2.7 GHz Other frequencies available upon request |

| Environmental | | |
|---|---|---|
| **Temperature Range** | Operating<br>(-20)ºC to 60ºC<br>(-4)°F to 140°F | Storage<br>(-40)ºC to 100ºC<br>(-40)°F to 212°F |

| Dimensions | |
|---|---|
| **[HxWxD] mm** | 40 x 80 x 135 |
| **[HxWxD] inch** | 1.57 × 3.15 × 5.31 |

| Weight (without battery) | |
|---|---|
| **Grams** | 550 |
| **Ounce** | 19.4 |

| Power | |
|---|---|
| **DC Voltage** | 12-24 V DC including battery charging |
| **Power Consumption** | Up to 12 Watt<br>*Depending on model |
| **Output Power** | Up to 1 Watt (Peak Per Antenna) |
| **Battery** | PRC-148<br>PRC-152 Optional |

| ICE Secured Autonomous Communications Suite | |
|---|---|
| **Primary (Standard) Cyber protection level** | • Transmission Security (TranSec) interception resistance<br>• Prevention of cyber-attacks against CPU's Operating System Integrity and embedded software protection<br>• Multi-layer data protection, Performs cryptographic operations for collected and transmitted data<br>• Prevention of man in the middle attack<br>• Prevention of Eavesdropping |
| **Professional (Optional License) Cyber protection level** | • Interference Avoidance System (IAS)<br>• Real-time interference detection, cognitive radio sensing, and avoidance<br>• Real time protection against RF Jamming<br>• Enables adjacent networks operation<br>• Extended Transmission Security (TranSec) interception resistance<br>• Unique key link identification |

| Interfaces | |
|---|---|
| **Telemetry & Control** | Serial RS232 |
| **Ethernet** | Ethernet 10/100Mbps Full Ethernet Protocol Transparency (IP, TCP, UDP, RTP, HTTP, HTTPS, VLAN, VPN) |
| **Antenna Interface** | TNCx2, SMA x1 |
| **LED** | Multi Function |
| **GPS** | SMA |

| Configuration and Management | |
|---|---|
| **Unit Monitoring** | Web-GUI |
| **Program Interface** | API |

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