

Shadowcat™ Radio

Low Visibility, Resilient Communications for Contested Environments



Less Detectable and Susceptible
to Interference and Jamming

Cooperative Distributed Beamforming Increases
Communication Range, EW Resilience,
and Robustness to Jamming

Affordable and Lightweight
(Comparable to a Commercial Smartphone)

Simple and Easy-to-Use, Transmits
Data, Voice and Real-Time Video

Both Handheld and Vehicle Mounted
Options Available

Affordable Resilient Communications

The new Shadowcat radio provides a modern, affordable, resilient radio for squad level communications in contested environments. The radio's advanced RF technology makes it less detectable and susceptible to interference and jamming attempts of the radio's transmission by adversaries. As additional Shadowcats are added to the network, they work together offering the resilience of distributed cooperative beamforming that increases the effective signal power, increases communication range, and provides directional diversity to overcome physical obstructions, e.g. foliage, buildings, and jamming. This provides highly robust and resilient communication for contested environments. Unlike typical large, brick style tactical radios, the Shadowcat weighs only 8 ounces and is the size of a commercial smartphone. The radio is simple, easy-to-use and can transmit data, voice and real-time high-def video. It is interoperable with the warfighter's existing equipment and is available in both handheld and vehicle mounted configurations.

- Optimizes throughput and minimizes jamming and interference
- Selectable fast frequency hopping

Dismounted Squad Radio

- Small size: 6" x 3" x 0.6" (smartphone sized)
- Lightweight: 8 oz
- Resilient, scalable mesh
- IVAS Integration ready

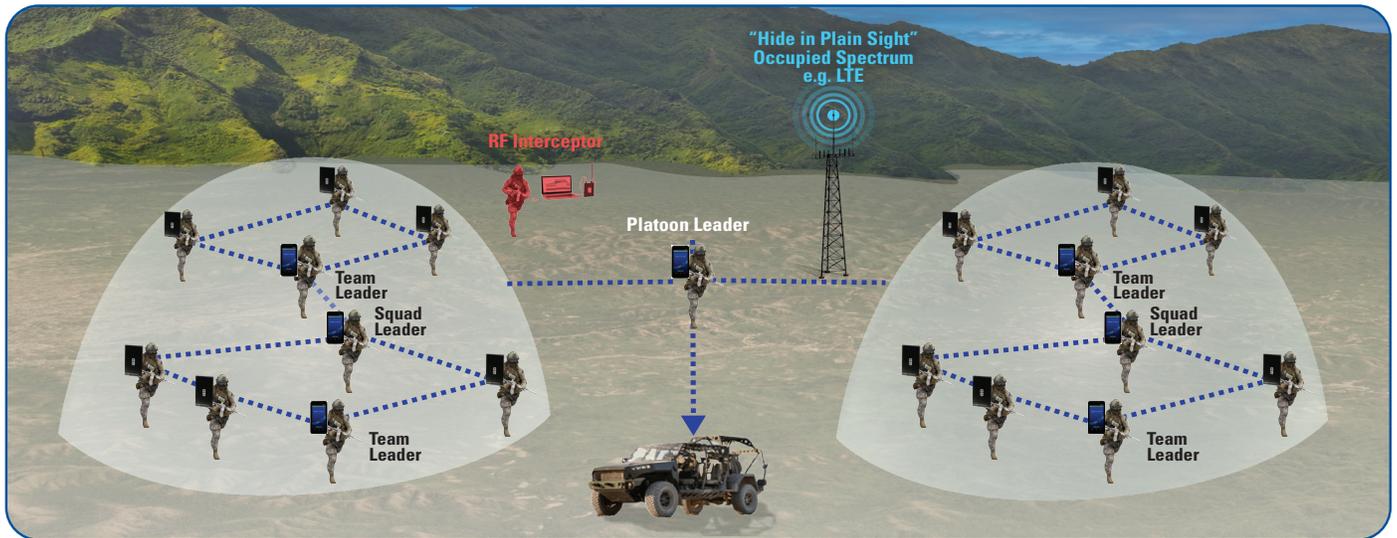
Mounted Vehicle Radio

- Small size: 8.7" x 3.7"
- Lightweight: 7.5 lbs
- On-the-move capability
- Drop-in Ready Capability



Mounted Vehicle Radio

Resilient, Intra-Squad Radio for Contested Environments



- **Waveform employing Hybrid FH-DSSS**
 - Achieves ranges exceeding 5km using <200 mW of TX power
- **Scalable Throughput**
 - MELPe Voice + Data, 8 kbps
 - Video H.264, 1000 kbps
- **Accommodates Evolving Threat Assessment**
 - Tunable Hop Rate
 - Hop Rates greater than 1 khps (minimum)
- **Distributed Cooperative Beamforming with Flood Routing**
 - Beamforming gains: Directional and Spatial Diversity + Range Extension
 - Improved transmission range
 - Non-Line of Sight Comms
- **EW Protection: Anti-Jam with Directional Obfuscation**
- **Shadowcat Radios successfully tested at NetModX and CyberQuest evaluations against Aggressive Threats**

Soldier Worn System



Dismount Configuration



ATAK with PLI