

Whisper Hunter™ Direction Finder

The *Whisper Hunter* direction finder is a high speed, wideband radio frequency (RF) direction finding (DF) system for commercial and government applications.

Redefining possible➤

Features

- Fast frequency scanning for coverage of multiple frequency bands
- Wide receiver bandwidth for simultaneous direction finding on many signals
- Four coherent receive channels for full simultaneous azimuth coverage
- IQ data memory buffer allows for processing of the same data in multiple ways

Proven Direction Finding Technology and Hardware

- Four element squircle array for 360° azimuth coverage (Patent pending)
- Directed search mode for a manual tasking
- Database search mode for automated self-tasking
- Maximum likelihood estimator (MLE) based direction finding algorithm

Hardware Details

- Commercial GPS
- 3-axis accelerometer and electronic compass
- Self-cooling with two internal fans
- Standard NATO mounting holes
- Single circular connector providing ethernet and power for simple integration
- Prime power: 30W (typical) at 12V DC

Additional Applications

- Spectrum scanning mode provides simple scan and detect spectrum without tasking the unit
- WiFi receiver surgically performs direction finding on medium access control addresses of interest
- Orthogonal frequency-division multiplexing (OFDM) detector uses digital signal processing gain to increase detection range on wideband OFDM signals
- Unmanned aircraft system database allows operator to choose a UAS platform from the database and direction find it when detected



To place an order, or for more information:

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Specifications

Size weight and power specifications

- Power input: 12V to 15V, nominal 12V
- Typical power consumption: 30W
- Weight: 32.5 lbs
- Height: 17.5in
- Diameter: 14in
- Operating temperature: -40°C to 65°C

Integration

- Gigabit ethernet, power, and optional RF receive blanking line integrated into single connector on bottom center of system
- Ruggedized system for vehicle mounting
- Standard 4 hole NATO mount pattern
- Supports both static and dynamic host configuration protocol IPv4 addressing
- Messaging interface uses protobuf files for easy integration with many platforms
- Supports multiple clients simultaneously

Direction Finding Specifications

- Operating frequency: 395 MHz-6000 MHz
- Azimuth coverage: 360°
- Elevation coverage: +/- 35°
- Azimuth accuracy 800 MHz-2500 MHz: 10° root mean squared (RMS)
- Azimuth accuracy 395 MHz-800 MHz and 2500MHz-6000MHz: 15° RMS
- Elevation accuracy: 30° RMS

- Line of Bearing (LOB) resolution: 1°
- Operating modes
 - Directed search mode
 - Database search mode
 - Spectrum sensing and detection mode
 - Support for mixed mode operations
- Signal types supported
 - Continuous wave
 - Amplitude/Frequency modulation
 - Phase shift keying
 - Direct sequence spread system
 - Frequency hopped spread system
 - 802.11a/b/g demodulation and MAC ID
 - DJI Lightbridge video detection
 - Ocusync video detection
 - Future support for additional protocols
- DF task bandwidth: Digitally isolate and filter around signals of interest with 7 kHz resolution from CW up to 50 MHz of bandwidth
- LOB time: 8 LOBs per second
- DF task load: Simultaneous support for thousands of signals of interest across the entire operating band

