

EAGLE ELINT SYSTEM Product Overview

- ESM**  
Emitter  
Collection
- Radar**  
Situational  
Awareness
- Intelligence**  
Surveillance  
Reconnaissance
- Realtime**  
Modulation  
Analysis



The EAGLE (Electronic Acquisition Gathering Locating Equipment) is a family of integrated electronic support (ES) measures for passive ISR (Intelligence, Surveillance and Reconnaissance) and ELINT applications. The EAGLE can be operated locally or remotely using its inherent net-centric capability.

The EAGLE is a microwave monitoring system that can be used for radar emitter surveillance, intercept and analysis. An ESM mode provides emitter situational awareness. The EAGLE offers a combination of highly capable receiver technology by using modular 1u rack-mount based tuners (receivers), PCI (Peripheral Component Interconnect) advanced pulse processors, signal digitizers and software-based digital signals processing (DSP) technology.

The EAGLE ES system offers wide frequency coverage from 0.5 to 18.0 GHz. With frequency extension options, EAGLE systems can be supplied to cover 20 MHz to 40 GHz in a single VXI Chassis.

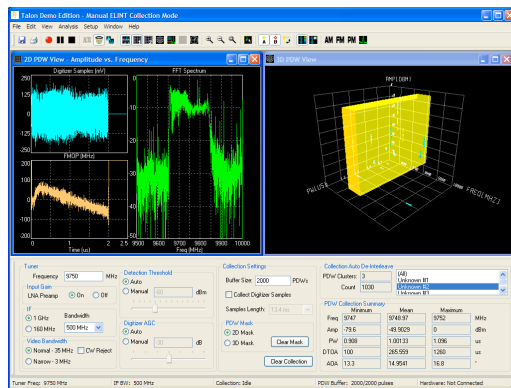
The EAGLE enables high quality ELINT collection by combining high-gain direction finding antennas with synthesized tuners, pulse processors and digital receiver technology.

The EAGLE technology supports rapid emitter detection and measurement. Wide instantaneous bandwidth operation allows the EAGLE to search many thousands of frequency bins per second in any predetermined set of frequency bands over its entire frequency range.

Wideband digital receiver operation combined with an advanced pulse processor and modern software-based DSP technology ensures that the EAGLE is effective at intercepting modern large time-bandwidth product radar emitters, as well as conventional radar types. Online ELINT analysis as part of the EAGLE software suite ensures that data collection is effective and timely. Detailed emitter analysis is available by selecting any emitter track.

## EAGLE Characteristics

- High Directional Gain and/or monopulse Antenna
- 0.5 to 40 GHz Optional
- 0.37 MHz to 20 GHz Tuner Standard
- 0.5 to 18.0 GHz DF Standard
- Internal Low Phase Noise Reference
- Rb Reference Clock (optional)
- 1000, 300, 160, 70 MHz IFs (other IFs optional)
- Operator Selectable 300/160/70MHz IF
- >500 MHz Instantaneous Bandwidth
- <10 ns single pulse TOA Resolution
- <0.5 MHz Frequency Resolution
- Log IF monitoring and triggering
- Active Gain Control
- >80 dB Dynamic Range
- Better than -65 dBm Sensitivity
- Library Parameters
- Collected Emitter Recording and Reporting



## EAGLE Features

- Used in Airborne, Naval and Ground Environments
- Net-Centric using TCP/IP Control
- ESM and ELINT in a Single System
- Software-based DSP Technology
- Modular Architecture
- Digital Receiver Technology
- PC-based Signal Processing & Recognition
- Advanced ELINT Analysis Tools
- Interpulse/Intrapulse Modulation Analysis
- Compact Shock Mounted Sub-Systems
- Programmable Emitter Database

## Talon Software

The EAGLE is powered by Talon software, a suite of realtime computer applications designed to support the entire family of Ultra Electronics Telemus EAGLE ES systems. Talon operates in a native MS Windows NT/2000/XP/Vista operating system environment. Talon provides easy operation and mission programming of the EAGLE system, capitalizing on the benefits and capabilities of using economical COTS and custom VXI modules.



**Ultra Electronics Telemus**  
 88 Hines Road, Ottawa, Ontario  
 Canada, K2K 2T8  
 Tel: 613 592 2288 Fax: 613 592 8855  
 www.ultra-telemus.com