



INFRARED SEARCH & TRACK SYSTEM

The SkyWard system offers state-of-the-art capabilities in Infrared Search and Track (IRST). It is a product of our extensive experience in the field of IRST for airborne and naval systems and is the latest addition to the Company's proven record in delivering innovative technology to Customers.

SkyWard has been designed and developed to satisfy the more demanding requirements of 5th generation fighter aircraft with an embedded solution. A pod configuration is also available to allow easy installation on existing platforms.

It comprises two Line Replaceable Units (LRU) - a Sensor Head Unit (SHU) and a Processor Unit (PU).

While the SHU can be mechanically tailored for an embedded a/c solution, the PU is a standard ATR box that can be installed away from the SHU. Low weight and reduced dimensions allow easy installation and maintenance.

KEY FEATURES

- Passive Operation (immune to electronic detection and RF Countermeasures)
- Mid or Long Wave IR
- Long range detection
- Wide scan volume
- Selectable Field Of View (FOV)
 - Wide
 - Middle
 - Narrow
- Open architecture
- Air cooled
- Broad suite of field proven air-to-air, air-to-surface and navigation modes
- Detection and tracking of a high number of targets
- Algorithms for low false alarm rate
- Growth capability to extend the existing features, including dual IR band detector and sensor fusion with radar
- Passive Ranging.

TECHNICAL CHARACTERISTICS

Track while scan Up to 200 targets tracked

FIELD OF VIEW

Narrow	8° x 6.4° (S-TWS/MTT)
Medium	16° x 12.8° (S-TWS/MTT)
Wide	30° x 24° (imaging)

WEIGHT (SHU + PU)

SHU	<25Kg
PU	<15Kg
Cooling	Air cooled
Dissipation	<400W
IR band	LWIR or MWIR
Scan coverage	± 85° azimuth ± 60° elevation
Outputs	Digital (ARINC 818), Analog (STANAG 3350) MIL-STD-1553, Customized I/O

SKYWARD MODES

Search and Track	Air-to-Air
While Scan (S-TWS)	Air-to-Ground
	Air-to-Sea
	Multiple and Single Target Track (MTT, STT)
Sector acquisition	Multiple and Single Target Track Automatic target recognition (ATR)
Imaging	Slaved Imaging
	Ground Map Assistance
	Beacon
	Recording
Navigation	Flying Aid
	Landing Aid
Steerable IR picture on pilot's helmet	

OTHER FUNCTIONS

Passive ranging
Optional embedded data recording capability

Embedded
Skyward SHU



Sensor head unit



Processor unit