



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