

# SKYWARD

ELECTRONICS DIVISION

## INFRARED SEARCH AND TRACK SYSTEM

The SkyWard system offers 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).

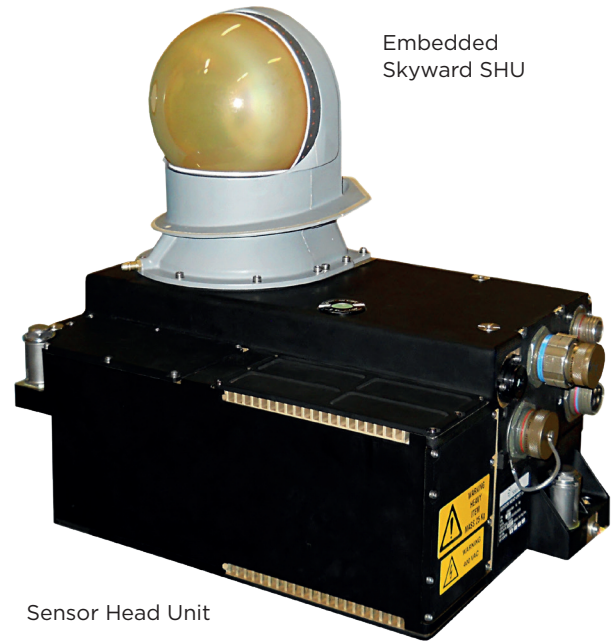
While the SHU can be mechanically tailored for an embedded a/c solution, the PU is a standard ATR box that can be installed away from the SHU. Low weight and reduced dimensions allow easy installation and maintenance.

### KEY FEATURES

- › Passive Operation (immune to electronic detection and RF Countermeasures)
- › Mid or Long Wave IR
- › Long range detection
- › Wide scan volume
- › Selectable Field 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



Processor unit



Embedded Skyward SHU

Sensor Head Unit

## 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

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