

STIR 1.2 EO Mk2 is Thales latest track radar for gun and missile fire control. Its high reliability and excellent stealth target detection capabilities support long missions. The STIR 1.2 is the first track radar with a full set of solid state transmitters for high reliability. Its design is optimized for stealth target detection in demanding littoral and ECM environments. A full EO suite complements the dual band radar for optimal performance.

- Ship defence against stealth targets the littoral environment
- Illumination support for Semi Active Homing missiles such as ESSM
- Situational awareness and target observation
- High reliability supports long missions
- Qualified and proven system in full series production

STIR 1.2 EO Mk2 Radar and EO tracking system





STIR 1.2 EO Mk2

Radar and EO tracking system

Main features

- High precision fire control for small to medium caliber guns and short range missile systems. Use of K band radar with its small beam width greatly reduces low elevation multipath errors.
- Optional Continuous Wave Illumination for guidance of semi-active homing missiles such as ESSM. With the STIR family of products, Thales has a long history of over 35 years with Standard Missile illumination.
- Optional stealth covers for reduced RCS. Extensive simulation techniques as well as an anechoic measurement room have been used to optimize the stealth characteristics.
- Small target detection in strong clutter. The extremely stable and low noise front end with large dynamic range in combination with advanced coherent Doppler processing enable the detection of small targets in rough sea, adverse weather and land clutter environments.
- Radar surveillance mode for improved situational awareness and early threat detection.
- Observation, classification and tracking with multiple optical sensors.
- High system reliability thanks to Solid State transmitters. These transmitters have a large number of power amplifiers in parallel which provides graceful degradation in case of failure.
- Easy maintenance through Built-In Tests and repair by replacement.
- The system is in full series production.

Functional aspects

- Target Tracking
- Optical Surveillance
- Optical Target acquisition
- Radar Surveillance
- Radar Target acquisition
- CW Illumination (optional)

During target tracking the following functions are available:

- Shell spotting
- Missile launch detection
- Multiple target detection
- Kill assessment support

Technical characteristics

Sensors:

- Radar : I-band
K-band
- EO : Colour zoom camera
Infrared camera
Black & White camera
Laser Range Finder

Antennas:

- Antenna type : Cassegrain with I and K-band monopulse cluster
- Diameter antenna : 1.2 m

Transmitters:

- Transmitter type : Solid State

Processing:

- Fully coherent Doppler processing with variable pulses per burst

Instrumented range:

- I-band : 120 km
- K-band : 36 km



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