

**DIEHL**  
BGT Defence

# IRIS-T

European Short Range Air-to-Air Missile



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Defence

# IRIS-T - far-sighted, highly agile and resistant to countermeasures



## Major Performance Increase Over Present Generation Missiles

### Unmatched Missile Performance

The highly agile IRIS-T is the only totally newly developed short range air-to-air missile with an imaging IR seeker, dogfight optimised rocket motor, wings, and a combined aerodynamic and thrust vector control. The seeker assisted radar proximity fuze and the large warhead give the missile a remarkable anti-missile capability. Predictive flight path tracking and lock-on-after-launch features enable the missile to engage targets in the rear hemisphere as well. The IRCCM and DIRCCM capabilities of IRIS-T are unmatched and the missile literally needs no maintenance. IRIS-T is a state-of-the art fire-and-forget short range air-to-air missile with unrivalled close-in-combat and intercept performance. IRIS-T's outstanding capabilities and performance will totally change the nature of future air warfare.



### IRIS-T Main Features

- Roll-pitch imaging infrared seeker with a large look angle, most modern signal processing and high target tracking rate
- Seeker assisted radar proximity fuze
- Large warhead
- Motor optimized for dogfight
- Tail controlled, winged airframe with combined aerodynamic and thrust vector control
- Mass, length, diameter and center of gravity similar to AIM-9L/M Sidewinder
- Fully compliant with existing analog Sidewinder and digital aircraft interfaces
- All-up round / certified round logistic concept

### Successful Multi-national Program

IRIS-T was developed by a six-nation consortium with Germany as lead nation. In addition Greece, Italy, Norway, Spain and Sweden are participating in the series production program. The industrial prime contractor Diehl BGT Defence and the partner companies started series production missile deliveries in 2005. IRIS-T was officially introduced into service in the six program partners' Air Forces at the end of 2005. In the same year the first export customer, the Austrian Armed Forces signed an IRIS-T procurement contract. In 2008 the South African Air Force also decided to equip their Gripens with IRIS-T.

### Performance Summary:

- Seeker acquisition range matching with missile kinematic range
- Seeker cueing by radar, helmet mounted display, infrared search and track device, missile approach warner and data link
- High resistance to IRCM and DIRCM
- Precise aim-point selection
- Direct hit missile with pinpoint accuracy
- High  $p_k$  against a variety of targets
- Lock-on before and after launch operations
- Destruction of targets in the rear hemisphere
- Anti-missile capability against incoming A/A and S/A missiles





### Aircraft Integration

Work on integration of IRIS-T into a number of aircraft already started during the development phase. Meanwhile the method of achieving full compatibility of IRIS-T with the widely used Sidewinder missile turned out to be very prudent and forward-looking. This enables easy utilization of the IRIS-T missile on both analog and the latest digital interfaces. As a result, the integration effort is reduced drastically for all aircraft manufacturers.

- Integration of IRIS-T into the Eurofighter/Thyphoon is successfully under way. Four out of five Eurofighter users have chosen IRIS-T as their standard IR air-to-air armament.
- Integration of IRIS-T into the F-16 in close cooperation with the aircraft manufacturer Lockheed-Martin is completed. The test pilots involved in the flight trials were very impressed by the excellent seeker performance.
- The Spanish Air Force also integrated IRIS-T into their F/A-18, thus providing another modern fighter aircraft with this missile's outstanding capabilities.
- Sweden has completed IRIS-T integration into the JAS 39 Gripen including Helmet Mounted Curing System.
- With IRIS-T, the self-defence capability of fighter bombers can be improved considerably. The German Air Force takes advantage of this and has started integrating IRIS-T into their Tornados.



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