

Vixen radar family – squarely at the front of the AESA market

Introduction

SELEX Galileo produces a range of modern, multi-mode air intercept and fire control Active Electronically Scanned Array (AESA) radar systems affordably designed for small to large fast jet platforms.

These high performance systems include the Vixen 500E, which is employed by the US Customs and Border Protection Agency for use in their Cessna Citation 550 aircraft and the Vixen 1000E, which is in full scale development for the Swedish Gripen Next Generation aircraft.

The Vixen 1000E is now termed the Raven ES-05 radar and is under development, with Saab, as part of the Gripen NG programme.

The Raven ES-05 radar incorporates an innovative repositioner mechanism (known as a swashplate) to allow a significant increase in the field of regard. The increased field of regard provides significant operational advantages for the Gripen aircraft.

Product Capability

In addition to considerable UK government investment in AESA, SELEX Galileo has engaged in a complementary long term programme of spending to develop advanced radar technology. This technology is now mature, product ready, free of export constraints and is the basis of the latest generation of AESA products launched by the Company.

SELEX Galileo has developed modular, scalable AESA technology which underpins a broad family of products to address the airborne radar market. The use of common components such as Transmit Receive Modules (TRMs) supports a competitive cost base. This is further supported by a long standing strategic supply agreement with a semiconductor manufacturer ensuring a secure source of ITAR-free, low-cost Gallium Arsenide.

European and other potential export customers now also wish to acquire an AESA capability and indeed, in certain export markets such as India, AESA fire control radar is a prerequisite. The investment in fire control AESA radar systems is essential given the strategic intent of SELEX Galileo to remain successful and be dominant in Europe as Europe's leading airborne radar supplier. Success in Fire Control Radar also serves as a basis for the affordability of our AESA surveillance products.

The Vixen radar family is a group of generic AESA fire control radar systems primarily intended for military fast jet applications, operating in both an air-to-air and air-to-surface

role. Designed to be flexible and scalable, and implemented from a set of common hardware and software modules, the Vixen family can cover the majority of fast jet and air intercept applications. Vixen offers greater operational performance, additional functionality, improved ECCM resistance and significantly longer times between critical failures (and hence better availability and reduced life cycle costs) than its mechanical scan equivalent for a comparable price.

After an open competition with other European radar suppliers, SELEX Galileo's Vixen 1000E radar equipped with a swashplate repositioner was selected in 2009 as the AESA radar for the Gripen Next Generation (NG) aircraft. AESA radar is seen as an essential element of any modern fighter aircraft and the swashplate design is considered to offer a vital competitive edge in the crowded fighter aircraft market. The Vixen 1000E is now termed the Raven ES-05 radar and is under development, with Saab, as part of the Gripen NG programme. Current export targets for the Gripen NG aircraft include countries such as India, Brazil and Malaysia.

Future Developments

Further investment in fire control AESA radar systems is essential given the strategic intent of SELEX Galileo to remain successful and dominant in Europe in the airborne radar market. Future investment will include development of new lightweight transmit/receive modules, use of Gallium Nitride, new modes and closer integration with other aircraft systems such as the defensive aids suite.

Conclusion

SELEX Galileo remains committed to being the leading European AESA radar supplier and will continue to invest in AESA radar technology to meet emerging export markets.

Press Office Contacts

Solange Distefano Pozzuoli
Responsible for Press Office

Tel: +39 06 41883710

Mob. +39 335 7499374

email: solange.distefanopozzuoli@selexgalileo.com

John Stevenson
Press Office Coordinator

Tel: +44 (0) 1268 883013

Mob. +44 (0) 7540 628691

email: john.stevenson@selexgalileo.com