IFF Interrogator

DoD AIMS Certified for All-Mode Mark XIIA and Mode S Applications

The common module Identification Friend or Foe (IFF) interrogator represents a family of universal, All-Mode monopulse systems that can be found in the Telephonics line of products. Whether configured for shipboard, airborne or ground-based applications, our IFF can be used with common hardware and software modules for civil or military applications and includes interfaces as well as capabilities that support a wide range of configurations for any application.

IFF Interrogator

Telephonics’ IFF is a single unit configuration consisting of a Weapons Replaceable Assembly (WRA) or Line Replaceable Unit (LRU) designed to perform interrogator functions in conjunction with a Host Mission System (HMS). The system can be used as a standalone interrogator or can be coupled to a primary radar where both the primary radar sensor and IFF share the same antenna pedestal. In the latter configuration, the modes of operation for the IFF may be driven by the operational radar modes, the resulting antenna rotation rate and antenna scanning modes of the primary radar.

The IFF administers an auto-adaptive Interrogation Rate Management (IRM) capability when operating standalone or in conjunction with a multi-mode primary radar system to optimize IFF performance. This overcomes the limitations of operating in conjunction with variable scan-rate antenna systems.

The system delivers reply processing, target detection and tracking capabilities for all interrogator modes. Telephonics’ interrogator makes use of a two- or three-channel secondary surveillance radar or monopulse antenna configuration for broadcasting interrogations and receiving replies.

Operating Capabilities

The common module IFF complies with all paragraphs of U.S. and international specifications that define required interrogator modes, performance, control, reporting and interface. All of Telephonics’ IFF systems are compliant to STANAG 4193, ICAO Annex 10 Volumes III and IV for Modes 1, 2, 3/A, C and S. Telephonics is also certified for DoD AIMS specifications 97-900, 04-900 and 03-1000A (through change note 3). The interrogator is designed to meet strict TEMPEST standards, EMC requirements of MIL-STD-461E and various military standards including: HERO, HERP, HERF, Electrostatic Discharge (ESD) and lightning.
Telephonics’ IFF systems provide monopulse processing and tracking for superior performance with interrogator side-lobe suppression and receiver capability. The IFF provides an interrogation and processing capability for all Mark XIIA modes (Mode 1, 2, 3/A, C, 4 and 5 with Level 1 and Level 2 and Mode S, with elementary and enhanced surveillance) complete with multi-channel passive ADS-B reporting.

Interfaces

The IFF provides all interfaces for ground, shipboard or airborne applications and will interact with host platforms or site interfaces for the greatest capability.

For additional information, contact Telephonics at 631.755.7000 or visit www.telephonics.com.