AN/APX-122
Airborne interrogator IFF system

The AN/APX-122 is the IFF interrogator system for the next-generation carrier-based airborne early warning system. The E-2D is designed to concentrate battle-management, theater-air-missile-defense, and multiple sensor-fusion capabilities into one platform. The AN/APX-122 system operates in conjunction with the new radar and secondary antenna co-located in the rotodome. In addition to mechanical scan capabilities, the system utilizes an electronically controlled beam-forming network for E- scan sector operation. The system is suitable for all AEW, ASW, and SAR applications and can be integrated with a variety of radar systems on the host aircraft.

The AN/APX-122 incorporates state-of-the-art technology and is implemented using VME open-system architecture to ensure flexibility and growth. Extensive use of Power PC and FPGA technology allows configuration of system interfaces to a variety of platform applications.

The Mark XII function incorporates continuous and sector operation. Mode 4 is incorporated using Supermode (SIF and mode 4 on the same interpulse period) in designated azimuthal sectors. The IFF target report includes range, azimuth, SIF code, and mode 4 friend identification. Reports also include flags for interrogation multipath, reply multipath, Identification of Position (I/P), emergency, and potential azimuth position errors from garbled conditions. The reply function also will exclude designated x-y map grid zones from reply detection.

The system uses a dedicated-fiber LAN interface with the mission computer and employs a dedicated fiber interface for video output data to operator displays.

BAE Systems, with decades of experience in IFF, has designed the AN/APX-122 based on a long legacy of IFF products. The design emphasizes performance, reliability, risk reduction, flexibility, and reduction of life-cycle costs. It places a high priority on standardization and commonality, with growth requirements carefully considered to ensure architecture that is compatible with future needs. The AN/APX-122 is well-suited to provide IFF capability on a wide variety of platforms.

FEATURES

- Mark XII interrogation and reply evaluation
- Modes 1,2,3/A,C,4 (Supermode)
- Monopulse reception processing
- ISLS and RSLS processing
- Includes beam former network with E- Scan capability
- Operates in conjunction with next generation E-2D radar, mission computer, and displays
- Extensive BIT and loop test capability
- Full qualification program including AIMS certification

SPECIFICATIONS

Unit, dimensions, and weight

- Cabinet, electrical CY-8913/APX-122
- 19.63” H x 23.81” W x 16.33” D, 128.25 lbs
- Phase shifter, electronic CV-4415/APX-122
- 9.75” H x 16.5” W x 12.12” D, 91.7 lbs

FOR MORE INFORMATION, CONTACT:

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