

AN/APX-113(V), AN/APX-125(V), and AN/APX-126

Combined Interrogator/Transponders



The AN/APX-113(V), AN/APX-125(V), and AN/APX-126 CIT systems have identical form factors

The AN/APX-113(V), AN/APX-125(V), and AN/APX-126 combined interrogator/transponders (CIT) are versatile identification friend or foe systems specifically developed for the F-16 Fighting Falcon.

Description

The AN/APX-113(V), AN/APX-125(V), and AN/APX-126 CIT systems use Mode 5 and Mode S to prevent fratricide and positively identify coalition forces, helping determine targets in the immediate battlespace and well beyond a pilot's visual range. Currently fielded on multiple F-16 blocks and derivative aircraft, the AN/APX-113(V), AN/APX-125(V), and AN/APX-126 are operating on both U.S. and international platforms.

Features and/or benefits

- Complete Mark XII or Mark XIIA identification system in one unit
- DoD AIMS 03-1000 certified
- STANAG 4193-compliant
- Mode S, Level 3 (elementary and enhanced surveillance)
- Multiple antenna configurations (electronic or mechanical scan)
- Dual-redundant MIL-STD-1553 bus interface
- Monopulse receive
- Anti-jam protection
- Mode C altitude report
- Reply evaluation and degarbling
- AN/APX-125 and AN/APX-126 utilize the KIV-78 crypto

System	Selective identification feature	Mode 4	Mode 5	Mode S
AN/APX-113(V)	✓	✓	Upgradeable*	✓
AN/APX-125(V)	✓	✓	✓	✓
AN/APX-126	✓	✓	✓	✓

*-5X CIT LRU and up

Specifications

Unit	Combined interrogator/transponder (CIT) Beam-forming network (BFN) Fuselage-mounted antenna elements (FMA) Lower interrogator antenna (LIA)	
Interrogator subsystem	Detection range Sector coverage Azimuth accuracy Range accuracy and resolution In-beam targets Modes 1, 2, 3/A, C, 4, 5 and national secure mode Front-panel transmit Front-panel receive	>100 nautical miles ±60 degrees AZ, ±60 degrees EL ±2 degrees <500 feet (152 meters) 32 2.4 kilowatts minimum -85 dBm typical
Interrogator antenna	Number of antenna elements Lower antenna	4 Conformal
Dimensions and weight	CIT: 8.26 inches height x 6.00 inches width x 14.50 inches depth, 32 pounds BFN: 6.50 inches height x 8.38 inches width x 4.00 inches depth, 10 pounds FMA: 1.55 inches height x 3.25 inches width x 13.10 inches depth, 0.5 pounds LIA: 0.60 inches H x 17.00 inches width x 14.00 inches length, 10 pounds	
Transponder subsystem	Front-panel transmit Front-panel receive Modes 1, 2, 3/A, C, S, 4, 5 and national secure mode	500 watts -76 dBm
System parameters	Mean time between failure System CIT only Mean time to repair Fault detection Fault isolation Prime power Voltage Consumption Forced-air cooling Integral fan	2,000 hours 2,400 hours 0.25 hours 97 percent 99 percent 28 volts direct current 200 watts CIT unit only Optional

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