

AN/APX-111(V)

Combined interrogator/transponder

F/A-18 configuration

BAE Systems produces the AN/APX-111(V) combined interrogator/transponder (CIT) systems for the F/A-18 aircraft.



With more than 80 years experience, BAE Systems leads the industry in identification friend or foe (IFF) development and technology. The AN/APX-111(V) CIT continues this legacy of IFF expertise with the highest-performance and most cost-effective IFF system available. The AN/APX-111(V) CIT system uses 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 versions F/A-18 aircraft, the AN/APX-111(V) is operating on both U.S. and international platforms.

Features

- Complete Mark XII or Mark XIIA identification system (including crypto computer) in one unit
- Mode S, Level 2-capable (ELS and EHS) in accordance with DO-181E
- Military Standard 1553 bus interface
- AIMS 03-1000A certified
- Compliant with ADS-B Out (DO-260B) via 1090 MHz ES
- Available with variable transmitter power

Specifications

Unit	Combined interrogator/transponder RT-1763(V) KIV-78 TSEC cryptographic computer appliqué Interrogator antenna (see below)	
Interrogator subsystem	Detection range Sector coverage Azimuth accuracy Range accuracy and resolution In-beam targets Modes	>100 nmi +/- 60 degrees AZ, +60, -30 degrees EL ±2 degrees <500 feet (156 meters) 32 1, 2, 3/A, C and 5 (L1)
Interrogator antenna	Beam-forming network Fuselage-mounted antenna elements or beam-forming network Conformal antenna system array	C-12481 (V) AS-4440 (V) (quantity 5) C-12625 (V) AS-4518 (V)
Interrogator unique features	Front-panel transmit Front-panel receive Monopulse receive, AJ protection, reply evaluation, and degarbling	1.4 kilowatts -81 dBm
Dimensions and weight	CIT with KIV-78 installed CAS BFN CAS array	8.17" height x 5.75" width x 12.61" depth, 29 pounds 3.00" height x 12.12" width x 7.80" depth, 13 pounds 1.64" height x 18.50" width x 17.28" depth, 12 pounds
Transponder subsystem	Front-panel transmit Front-panel receive Modes	500 watts -76 dBm 1, 2, 3/A, C, S (ELS/EHS) and 5 (L1/L2)
System parameters	MTBF System CIT only MTTR Fault detection Fault isolation Prime power Voltage Consumption Forced-air cooling	2,500 hours >3,500 hours 0.25 hours >98 percent >99 percent 28 Vdc 180 watts CIT WRA only

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