BAE SYSTEMS

AN/APX-111(V) 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.

Description

With more than seventy years experience, BAE Systems leads the industry in 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.

Features and/or benefits

- Complete Mark XII or Mark XIIA identification system (including crypto computer) in one unit
- Mode S, Level 2-capable (ELS and EHS)
- Ada software
- MIL-STD-1553 bus interface
- AIMS 03-1000A Certified
- Available with Linear Interrogator Transmitter

Specifications

Unit	Combined interrogator/transponder RT-1763(V) KIV-6/TSEC or KIV-78 TSEC cryptographic computer applique Interrogator antenna (see below)	
Interrogator subsystem	Detection range	>100 nmi
	Sector coverage	+/- 60 degrees AZ, +60, -30 degrees EL
	Azimuth accuracy	±2 degrees
	Range accuracy and resolution	<500 feet (156 meters)
	In-beam targets	32
	Modes	1, 2, 3/A, C, 4 and 5
Interrogator antenna	Beam-forming network	C-12481 (V)
	Fuselage-mounted antenna elements	AS-4440 (V) (quantity 5)
	or beam-forming network	C-12625 (V)
	Conformal antenna system array	AS-4518 (V)
Interrogator unique features	Front-panel transmit	1.4 kilowatts
	Front-panel receive	-81 dBm
	Monopulse receive, AJ protection, mode C altitude report, reply evaluation, and degarbling	
Dimensions and weight	CIT with KIV-6 installed	8.17" height x 5.75" width x 12.61" depth, 29 pounds
	CAS BFN	3.00" height x 12.12" width x 7.80" depth, 13 pounds
	CAS array	1.64" height x 18.50" width x 17.28" depth, 12 pounds
Transponder subsystem	Front-panel transmit	500 watts
	Front-panel receive	-76 dBm
	Modes	1, 2, 3/A, C, 4, 5, and S
System parameters	MTBF	
	System	2,500 hours
	CIT only	>3,500 hours
	MTTR	0.25 hours
	Fault detection	98 percent
	Fault isolation	99 percent
	Prime power	
	Voltage	28 Vdc
	Consumption	180 watts
	Forced-air cooling	CIT WRA only

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