

AN/APX-113(V)

Combined interrogator/transponder

F-16 Configuration

The AN/APX-113(V) combined interrogator/transponder (CIT) is a versatile IFF system specifically developed for the F-16 Falcon. It is presently used for the Block 15 A/B MLU, Block 20 A/B, Block 30/32, Block 40, Block 50/52 C/D, and Block 60 aircraft. The system's versatility is demonstrated by other applications, which include ASW and surveillance helicopters, aerostats, Mig-29, Japan's F-2 fighter, and other international platforms. The AN/APX-113(V) CIT includes mode S Elementary and Enhanced Surveillance (ELS and EHS) capability and has an AIMS-approved mode 5 growth path, ensuring that the AN/APX-113(V) CIT will be as capable tomorrow as it is today.

FEATURES

Complete Mark XII/MarkXIIA identification system (including crypto computers) in one unit

DoD AIMS-certified
STANAG 4193-compliant

Includes Mode S, Level 3 (ELS and EHS)

Mode 5 currently in development with U.S. Air Force
Expect fully qualified, certified system in 2008

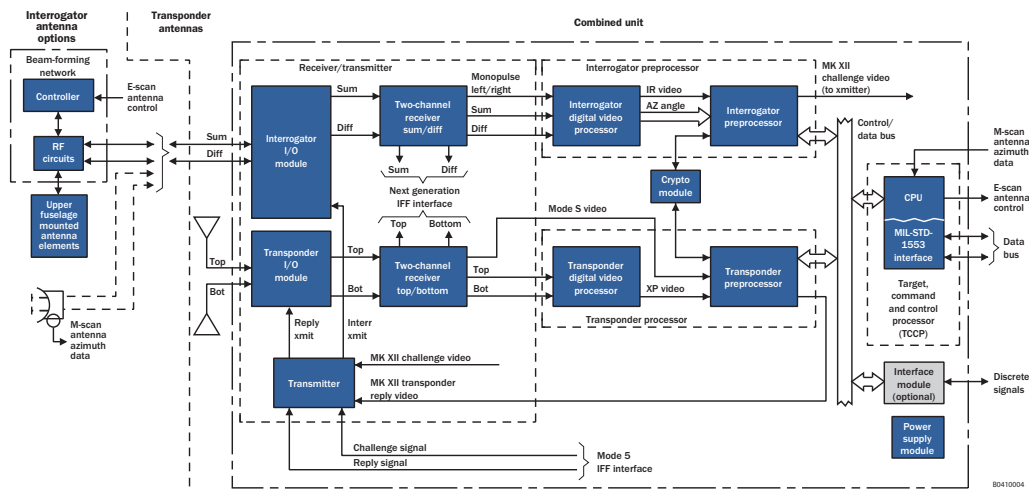
Multiple antenna configurations
(electronic or mechanical scan)

Ada software

Dual-redundant MIL-STD-1553 bus interface



AN/APX-113(V) CIT system



SPECIFICATIONS

Unit

- Combined interrogator/transponder
- Beam-forming network
- Fuselage-mounted antenna elements
- Lower Interrogator antenna

Interrogator subsystem

- Detection range >100 nmi
- Sector coverage $\pm 60^\circ$ AZ, $\pm 60^\circ$ EL
- Azimuth accuracy $\pm 2^\circ$
- Range accuracy and resolution <500 ft. (152 m)
- In-Beam targets 32
- Modes 1, 2, 3/A, C, and 4 (mode 5 in development)

Interrogator antenna

- Number of antenna elements 4
- Lower antenna Conformal

Interrogator unique features

- Front-panel transmit 2.4 kW min.
- Front-panel receive -85 dBm typ.
- Monopulse receive, AJ protection, mode C altitude report, reply evaluation and degarbling

Dimensions and weight

- 8.26" H x 6.00" W x 14.50" D, 32 lbs.
- 6.50" H x 8.38" W x 4.00" D, 10 lbs.
- 1.55" H x 3.25" W x 13.10" D, 0.5 lb.
- 0.6" H x 17" W x 14" L

Transponder subsystem

- Front-panel transmit 500 W
- Front-panel receive -76 dBm
- Modes 1, 2, 3/A, C, 4, and S (mode 5 in development)

System parameters

- MTBF
 - System 1,600 hr.
 - CIT only 2,000 hr.
- MTTR 0.25 hr.
- Fault detection 97%
- Fault isolation 99%
- Prime power
 - Voltage 28 Vdc
 - Consumption 200 W
- Forced-air cooling CIT unit only
- Integral fan Optional

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