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  
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<th>Interrogator antenna (see below)</th>
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| **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: 2,500 hours  
System: >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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