

AN/DPX-7

Reduced size transponder



The reduced size transponder (RST) is BAE Systems' next-generation IFF transponder.

The RST incorporates features required for tomorrow's global military and civil air traffic control requirements. It provides Mode 5, Mode S, and ADS-B functionality in a reduced size unit at a lower cost than current military transponders.

The RST also features an ADS-B passive receive capability to support situational awareness and sense-and-avoid applications. RST is ideal for platforms with severe size, weight, and power (SWaP) constraints. The extensive use of programmable technology in the RST ensures long service life through software upgrades without the risk and cost associated with hardware modifications. RST has an interchangeable platform interface module (PIM) that provides interface flexibility.

Features and benefits

- Reduced SWaP provides a solution for constrained platforms
- Elementary surveillance (ELS) and enhanced surveillance (EHS) compliant
- Interchangeable platform interface module allows for drop-in replacement of existing transponders or customization
- MIDS/JTIDS compatible
- ADS-B out per RTCA/DO-260B
- Multiple interface buses available including MIL-STD-1553, ARINC 429, Ethernet, RS-485 and RS-232
- Optional remote control unit for use on non-data based aircraft
- Qualified for fixed wing, rotary wing and shipboard applications



Reduced Size Transponder

Currently Fielded Military Transponder

Specifications

| | |
|-----------------------|---|
| Transmit Power | 57± 2 dBm per DoD AIMS 03-1000 |
| Weight | Less than 6 pounds with crypto appliqué installed |
| Dimensions | 5.375" height x 5.375" width x <4.000" depth |
| Power | 28 VDC, IAW MIL-STD-704A-F |
| Reliability | >4,000-hour predicted MTBF in airborne uninhabited platform |
| Maintainability | Front panel BIT activation and LRU/WRA status indicator for rapid verification of operational readiness |
| Temperature Operating | -50 degrees celcius to +71 degrees celcius MIL-STD-810G |
| EMI | MIL-STD-461F |
| Shock, Vibration | MIL-STD-810G |
| Supports | Modes 1, 2, 3/A, C, and Mode 5 (Level 1 and 2) |
| | Mode 5 Level 2 and interface to TCAS II system per RTCA/DO-181 |
| | 1090 MHz receive for ADS-B, ADS-R TIS-B and growth to Mode 5 Level 2 broadcast in |
| Certifications | DoD AIMS 03-1000 certified |

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