

AN/DPX-7 Reduced Size Transponder



The **Reduced Size Transponder (RST)** is BAE Systems' next-generation IFF transponder.

Description

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.

Features and/or benefits

- Reduced SWaP
- Modes 1, 2, 3/A, C, 4, and Mode 5 (Level 1 and 2)
- Mode S Level 3 and interface to TCAS II system per RTCA/DO-181
- Elementary surveillance (ELS) and enhanced surveillance (EHS) compliant
- Supports 1090 MHz receive for ADS-B, ADS-R TIS-B and growth to Mode 5 Level 2 broadcast In
- Growth to support UAT ADS-B In
- Interchangeable platform interface module allows for drop-in replacement of existing transponders or customization
- DoD AIMS 03-1000 certified
- 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

The RST also features an ADS-B passive receive capability to support situational awareness and sense-and-avoid applications. RST is ideal for UAS/RPAs and helicopters 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.



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" 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

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