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 bused aircraft
- Qualified for fixed wing, rotary wing and shipboard applications
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, 4, 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