

ALR-2002

Radar Warning Receiver

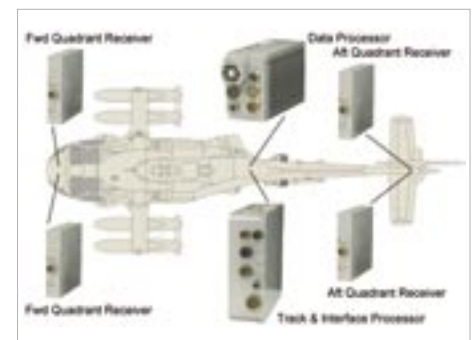
- High sensitivity crystal video receiver/ super heterodyne receiver based architecture
- Dual receiver architecture offers near 100% probability of intercept
- Provides both visual & aural situation awareness to aircrew in high density RF environments
- Capability to function as the electronic warfare suite controller of an electronic warfare self protection suite
- Interfaces with avionic systems including both expendable and active countermeasures

Selected as the Radar Warning Receiver to satisfy the operational needs of the Australian Regular Army's S-70A-9 Black Hawk and CH-47D Chinook as an integral part of the Electronic Warfare Self Protection system to be provided under Project Echidna Phase 2A.

The ALR-2002 Radar Warning Receiver system provides detection, direction finding, analysis and classification of radar emissions across the standard Radar Warning Receiver frequency range. The system warns aircrew of radar emissions which represent a potential threat to the aircraft aurally and visually, via a dedicated multi-function display and/or mission computer.

The architecture of the ALR-2002 Radar Warning Receiver can be readily adapted to a range of aircraft platforms including fast jets, rotary wing, transport and commercial aircraft.

The system comprises five main assemblies; four Quadrant Receivers (QR), Low Band Receiver (LBRX), Data Processor (DP), Track and Interface Processor (TIP) and Azimuth Display Indicator (ADI).



TIP, QR, LBRX, ADI and DP assemblies.

Azimuth Display Indicator



Key Features

- Provision of overall situation awareness to the aircrew even during high density environments
- High receiver sensitivity and fast response time enabling aircrew to assess threats and take appropriate action before they become lethal
- Dual receiver architecture to enable near 100 percent probability of intercept for all emitter types and densities
- Liquid crystal multi function display with sunlight readable colour
- Rapid reprogrammability to react to new emitter types and mission profiles
- Capability to function as the Suite Controller of an electronic warfare self protection suite
- Software (Ada) fully developed and supported in Australia using the Rational ROSE environment
- Interfaces to avionic systems either via MIL-STD-1553B or discrete I/O.
- Mission planning tools available (pre and post flight) for support, validation and training

Technical Specifications

Frequency range

Standard RWR coverage with expansion capability to mm wave

Emitter Types

CW, Low and High PRF, PD and Complex

Interface

Power 115V ac 400 Hz and 28V dc MIL-STD-704
Avionics BUS Dual Redundant MIL-STD-1553B
EW BUS Dual Redundant MIL-STD-1553B Controller Capability

Environmental

General System designed to meet requirements of MIL-E-5400T
Altitude 70,000 feet
Operating temperature range -40 °C to +71°C
Storage temperature range -54 °C to +95°C

Size and Weight

Quadrant receivers 179mm x 43mm x 194mm (2.2kg)
Track and interface processor 335mm x 123mm x 193 mm (9.3kg)
Data processor 330mm x 287mm x 96mm (11.8kg)
Multi-function display 95mm x 108mm x 46mm (1.4kg)
Low band receiver 308mm x 172mm x 81mm (5.2kg)



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