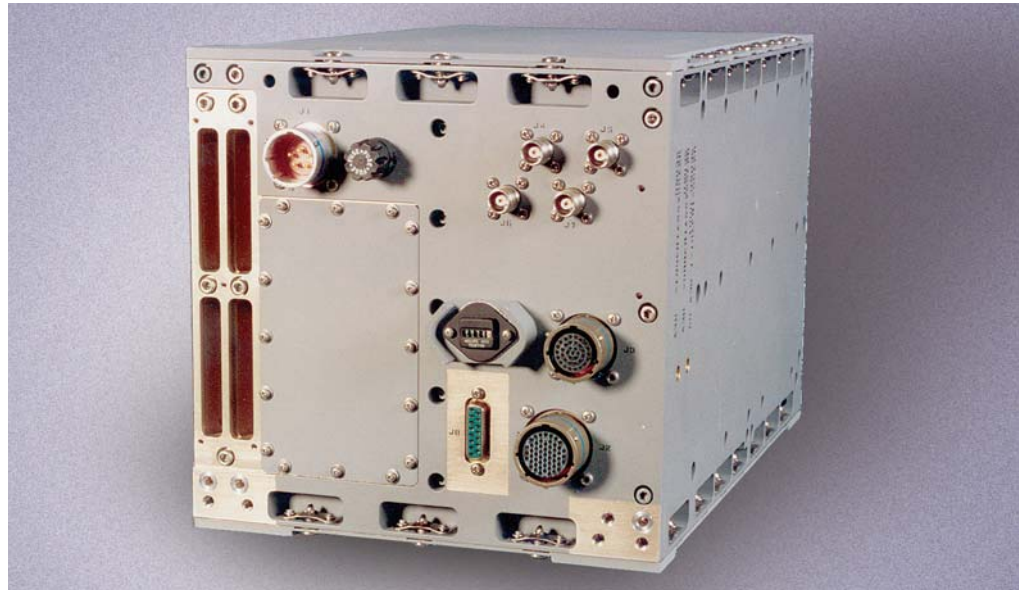


LR-100 Receiver

Small Size/Big Performance



*Combat proven in
Operation Enduring
Freedom*



Northrop Grumman's LR-100 is a combat-proven, affordable, high-performance radar warning receiver (RWR)/electronic support measures (ESM)/electronic intelligence (ELINT) receiver system – all in one compact, lightweight package. The system's small foot-print and 73-pound weight make it ideally suited for installation on virtually any air, sea, or land-based platform, including light-weight unmanned air vehicles (UAVs). By providing RWR, ESM and ELINT functionality in a single system, the LR-100 serves a variety of missions and eliminates the cost of integrating and installing a unique system for each function.

The LR-100 maintains the high-performance of a much larger system. It offers precision pulse parameter (pulse repetition interval/pulsewidth/frequency/amplitude/time of arrival phase) measurements; determines direction of arrival (DOA) by using either phase, amplitude, time difference of arrival (TDOA), or frequency Doppler techniques; and outputs formatted data reports. The LR-100, with its fine DOA measurement provides a geolocation capability with unprecedented speed and accuracy. The standard LR-100 configuration automatically searches 2 to 18 GHz in frequency with dual adaptive bandwidth superheterodyne receivers. The system's adaptable intermediate frequency bandwidth design features high sensitivity and rapid revisit rates. The LR-100 has demonstrated superior results operating in high pulse density environments.

Combat Proven Geolocation/ Target-Cueing Capability

The LR-100 utilizes phase interferometry and a patented passive ranging technology to provide situational awareness with geolocation of emitters for cueing other onboard sensors. This geolocation/target cueing capability has been combat proven in Operation Enduring Freedom. The LR-100 was used to cue the other sensors, significantly reducing the target search time required for each device to search for and acquire a target.

Demonstrated Benefits

- Real-time electronic order of battle surveillance and ESM reporting
- Radar warning and display
- Accurate signal characterization for ELINT support
- Multiple interfaces (RS-232, RS-422, MIL-STD-1553, and ethernet)
- Proven electromagnetic compatibility and electromagnetic compatibility with blanking provisions for on-board radars
- In-flight reprogrammability for changing mission requirements
- Windows™ based programming and analysis tools
- 1,500 hour mean-time-between-failure rate

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Flexible and Expandable

The LR-100 is easily upgraded and designed for growth, thanks to its use of open architecture, VME backplane, and Ada software. To accomplish diverse platform and mission requirements, the LR-100's architecture accommodates various antenna configurations ranging from four or six element amplitude DOA systems to four quadrant azimuth interferometer arrays.



User-Friendly

A Windows™ based Mission Control Program provides an easy-to-use interface for signal analysis and maintenance. Tune table and identification file creation are accomplished with a user-friendly interface and can be uploaded to the system in seconds for instant mission changes. User training is available along with a complete maintenance and warranty package.

The LR-100 has been fully integrated with threat warning displays, multi-function displays, the ALE-47 chaff dispenser, Northrop Grumman's LN-100 INS/GPS, and a solid-state digital recorder. Multi-function displays can provide a wide range of operator-selectable advanced display capabilities including 1) moving maps with LR-100 overlaid threat data, 2) a conventional radar warning display, and 3) a maintenance/built-in test formatted display.

In Production and Available for U.S. Department of Defense International Sales

LR-100 systems are currently in production for the Global Hawk UAV, the Kaman Aerospace SH-2G Super SeaSprite helicopter, the Sikorsky S-70B Naval Seahawk helicopter and Special Operations aircraft submarines and patrol boats. In addition, the system has been successfully installed and/or validated on the P-3 Orion, Hunter UAV, the ASCIET Aerostat, the Predator UAV and the US Navy C-28 aircraft.

System Description

LRU Description	Dimensions Height x Width x Depth (in/cm)	Weight (lb/kg)	Power (Watts) @28 VDC
Azimuth Antenna Interferometer Unit (4 each)	3.75 x 13.375 x 6.84 / 9.525 x 33.973 x 17.374	23.6/8.80	24 (Total)
Antenna Interface Unit	8.06 x 6.50 x 8.44 / 20 x 472 x 16.510 x 21.438	10.5/3.92	35
Receiver Processor Unit/Tray	10.5 x 9.0 x 18.0 / 26.67 X 22.86 X 45.72	38.9/14.51	160
Total		73.0/27.23	219

Northrop Grumman's LR-100 Receiver System is a small, affordable, multi-mission receiver solution for all air, sea and land-based platforms

For more information, please contact:

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Specifications and features subject to change without notice.