



## LRA-2100 LOW RANGE ALTIMETER

# PERFORMANCE AND FLEXIBILITY

The next-generation LRA-2100 low range altimeter from Collins Aerospace delivers advances made possible through our extensive, proven experience with software-defined radio technology.

The LRA-2100 is a radio altimeter that provides precise, digital height measurements above terrain during aircraft approach, landing and climb-out phases of flight. This information is provided to the automatic flight control system, instrument system and terrain awareness and warning system.

The LRA-2100 offers a wide range of advantages through use of the industry's most advanced technologies. These advantages include:

- Complete digital design
- Latest component technology and advanced manufacturing processes
- Direct drop-in replacement to LRA-900 and associated antenna

Because the LRA-2100 features the latest component and manufacturing technology, it will significantly improve reliability and performance.

The all-digital design of the LRA-2100 improves the overall accuracy of the altitude solution by being able to detect and filter errors associated with antenna or cable leakage. Additionally, the LRA-2100 can isolate the leakage and provide information to the maintenance computer to instigate the proper maintenance action and improve overall availability of the system.

The digital design also eliminates ambiguity in the altitude solution by being able to more accurately determine the source of multiple returns. This ability allows the LRA-2100 to identify each target and report the best result. It allows the LRA-2100 to reject erroneous altitude returns from under-flying aircraft that persist for more than 2.5 seconds and from other ground structures such as landing lights, bridges and overpasses. This capability significantly reduces the occurrence of autopilot disconnects due to variation from one radio altimeter to another.

The LRA-2100 is designed to maintain 1-foot accuracy while traveling over a runway-like surface and up to 20 feet of altitude.



### KEY FEATURES AND BENEFITS

- Lower probability of autopilot disconnects
  - Homogeneity performance between altimeters
  - Accuracy, especially over challenging terrain and objects on approach
- Greater safety and availability
  - Antenna leakage detection and cancellation
- Improved aircraft maintainability
  - Detects and isolates bad antenna or RF coaxial cable installation issues
  - Isolates the leakage to LRU and cable bulkhead, RF cable and antenna

## CERTIFICATION/RELATED DOCUMENTS

FAA TSO C87a (Class A)

ETSO C87a (Class A)

EUROCAE ED-12B

ED-14E/F

ED-30

ED-80

ARINC documents 429-16, 600-14, 707-6

RTCA documents DO-155, DO-160E, DO-178B, DO-254

Environmental DO-160E categories

## SOFTWARE

DO-178B

## ANTENNA

RAA-2100 radar altimeter antenna (two required per system)

Note: The RAA-2100 is a drop-in replacement to the existing antenna



Specifications subject to change without notice.



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