GE Aerospace

AHMU

Aircraft Health Management Unit

Deeper insights into aircraft operational data and performance

A proven solution for turning aircraft data into actionable information and knowledge

The AHMU supports continuous connectivity between data from your aircraft systems and your maintenance infrastructure using on-aircraft communications and/or GE's Wireless Data Network Unit (WDNU). Up to 10,000 aircraft data parameters, over hundreds of flight hours is continuously available for analysis and improving maintenance practices. Operators can easily reconfigure the AHMU to specify parameters and events to be recorded and transmitted and to host user-defined analytics. The AHMU fits into your maintenance strategies and supports your unique aircraft operating environment. The unit is designed as part of an overall Integrated Vehicle Health Management (IVHM) system that includes GE's Wireless Data Network Unit (WDNU) and Ground Services Network (GSN).

End-to-end solution

GE's AHMU is part of an end-to-end IVHM solution that collects and analyzes aircraft operation data for more informed maintenance actions. With GE's IVHM aircraft issues are identified in a fast, accurate, easily-accessible, and concise manner. AHMU is currently providing valuable insights to operators on over 400 aircraft across eight aircraft types.

Overview

AHMU Leading Characteristics
- Customer-configurable parameter acquisition of up to 100,000+ parameters
- Up to 10,000 recorded parameters
- Acquisition rates from 1/32hz to 128hz
- Customer defined analytics / condition monitoring
- Support for multiple I/O interfaces
- 115 GB onboard storage (nominal 200hr flight data)
- Robust security architecture
- Lightweight at 4.3 lbs
- Tray/direct mount

Supported Interfaces
- 5 x Ethernet bus 10/100
- 1 x Ethernet bus 1000 Mbit
- Up to 2 x ARINC-664p7 end systems
- 15 in 4 out x ARINC-429
- 1 x ARINC-717
- 5 x RS-422
- SD Card/USB on front panel

On Board Functions
- Health data recording
- Maintenance communications manager
- Dataload server
- File server
- Remote Parameter Display (RPD)
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Ground Functions
- At-aircraft data access for maintenance investigations with rich data visualization capabilities
- Secure webserver allows at-aircraft review of live and recorded data via hosted web pages using standard internet browsers
- Flexible, web-based configuration tools for customers to configure recording parameters and exceedance checks
- Global access via remote connection over SATCOM networks

Software
- RTCA DO-178B, DAL D
- LINUX® operating system

GE Integrated Vehicle Health Management (IVHM) System

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