

# OVH-380-2

## High-Speed Airborne Instrumentation Multiplexer Overhead Board

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### Key Features

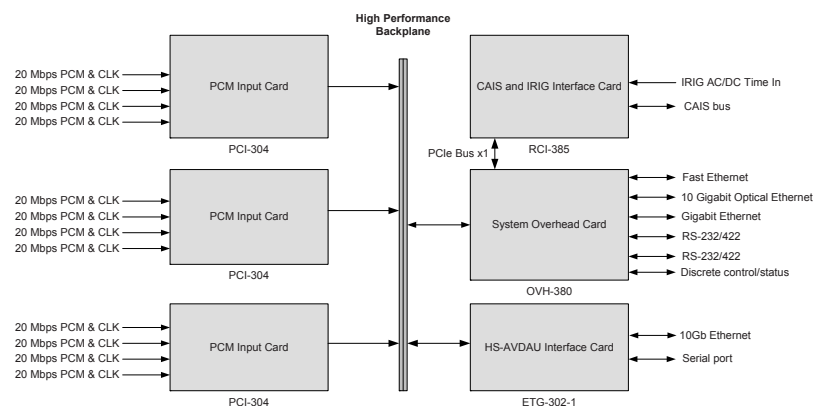
- Main processing board for the AIM and HS-AVDAU product families
- Contains 2 GB DDR3 SDRAM and 512 MB flash memory
- Controls the AIM or HS-AVDAU backplane bus
- One serial port used for system programming and console access and one serial port for external communication with other units
- Four general-purpose LVTTTL inputs and four general-purpose opto-coupled outputs
- One 10GBASE-SR, one 100/1000BASE-T and one 100BASE-T Ethernet port
- Accepts an RCI-385-1 mezzanine card for time code functions and CAIS and IRIG-B interfaces

### Applications

- Distributed systems
- CAIS applications
- Radar data recording

## Overview

The OVH-380-2 is the enhanced overhead board for the AIM/HS-AVDAU-200XE. It stores and executes the operating system, application software and drivers, and terminates the IP stack for Ethernet support. It also receives and formats inbound (acquired) data. When the OVH-380-2 is used in the AIM, it can transmit data to a recorder through one 100BASE-T, one 100/1000BASE-T and one 10GBASE-SR port. The OVH-380-2 is partnered with an RCI-385-1 CAIS and IRIG interface board using an expansion connector.



OVH-380-2 System Diagram

## Specifications

### General Specifications

- Supply current: 2.9A @ +3.3V; 2.6A @ +5V; 1.15A @ +12V (one core active)
- Power consumption: Total = 37W max
- Compatibility: Operates in a next generation AIM or HS-AVDAU chassis
- Central processing unit: Power architecture processor
- CPU performance: Up to 12,000 Dhrystone 2.1 MIPS @ 1.2 GHz
- Dimensions: 6.3 in (160 mm) (faceplate) x 5.2 in (132 mm)
- Weight: 18 oz. (510 grams)

### Environmental Specifications

- Operating temperature: -40°C (min) to +85°C (max)
- Storage temperature: -55°C to +100°C
- Random vibration: 15 Grms, 20 to 2,000 Hz, 10 minutes, any axis
- Acceleration: 25 g, indefinite duration, any axis
- Shock: 15 g, half-sine, 11 mS, 6 shocks, any axis

### Connectors

- Connectors: Serial ports: DBM25SD, GbE ports: DEM9SD, 10 G port: 801-010-02MB-2PA
- Mating connectors: Serial ports: DBMA25P, GbE ports: DEMA9P, 10 Gbe port: 801-007-16C8-28A

### Input/Output

- Channels: Four single-ended LVTTTL level inputs (general-purpose), four opto-isolated outputs (general-purpose), one serial RS-232 and one serial RS-422/485 channel per board
- Single-ended input signals: Pulled-up on the board and buffered by a 74LCX245 (or equivalent) buffer
- Opto-isolated channels: AQY222R2VY or equivalent devices are used. Current capacity: 125 mA.
- Differential signals: RS-422/485 compatible with a selectable internal 120 ohm receiver termination resistor
- Ethernet: One 100/1000BASE-T port, one 100BASE-T port, and one 10GBASE-SR

## Ordering Information

Contact [Curtiss-Wright](#) for ordering information