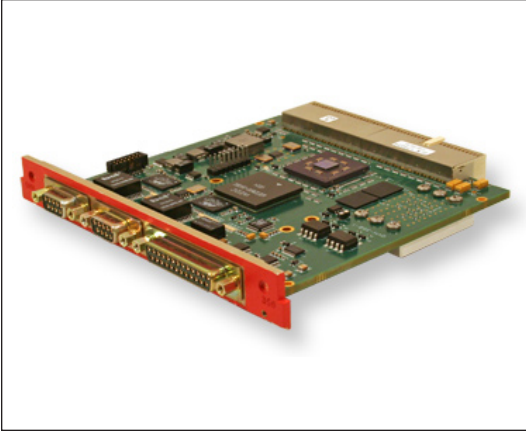


High-Speed Airborne Instrumentation Multiplexer Overhead Board



Applications

- Distributed systems
- CAIS applications
- Radar data recording

Features

- Main processing board for the AIM and HS-AVDAU product families
- Contains 256 MB DDR SDRAM and 64 MB flash memory
- Controls the AIM (OVH-350-1) or HS-AVDAU (OVH-350-2) 66 MHz 64-bit 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
- Two Gigabit Ethernet ports and one Fast Ethernet port
- Accepts an RCI-305-2 or -3 mezzanine card for time code functions and CAIS and IRIG-B interfaces

Description

The OVH-350 is the processor-based controller (overhead) board for the AIM/HS-AVDAU-200X and the AIM-400X. 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 and transmits it to an nREC-6000-1 recorder through one or two 10/100/1000BASE-T Ethernet ports. The OVH-350 is partnered with an RCI-305-2 or -3 CAIS and IRIG interface board using an expansion connector.

Revision 11/09/2009

OVH-350-X Datasheet

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Specifications subject to change without notice.



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OVH-350-X High-Speed Airborne Instrumentation Multiplexer Overhead Board

Technical Specifications

General Specifications

Supply current: 3 A @ +3.3 V; 60 mA @ +5 V

Power consumption: 10 watts maximum (est.)

Compatibility: Operates in an AIM/HS-AVDAU-200X or AIM-400X

Central Processing Unit: PowerPC

CPU performance: 1600 Dhrystone 2.1 MIPS @ 800 MHz

Dimensions: 6.3 in. (160 mm) (faceplate) x 5.2 in (132 mm)

Weight: 14 oz. (397 grams) (estimate)

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: 25g, indefinite duration, any axis

Shock: 15g, half-sine, 11 mS, 6 shocks, any axis

Humidity: 5-95% RH, non-condensing

Altitude: 0 to +70,000 ft.

EMI/EMC: Per MIL-STD-461

Connectors

Connectors: Serial ports: DBM25SD, GbE ports: DEM9SD

Mating connectors: Serial ports: DBMA25P, GbE ports: DEMA9P)

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.

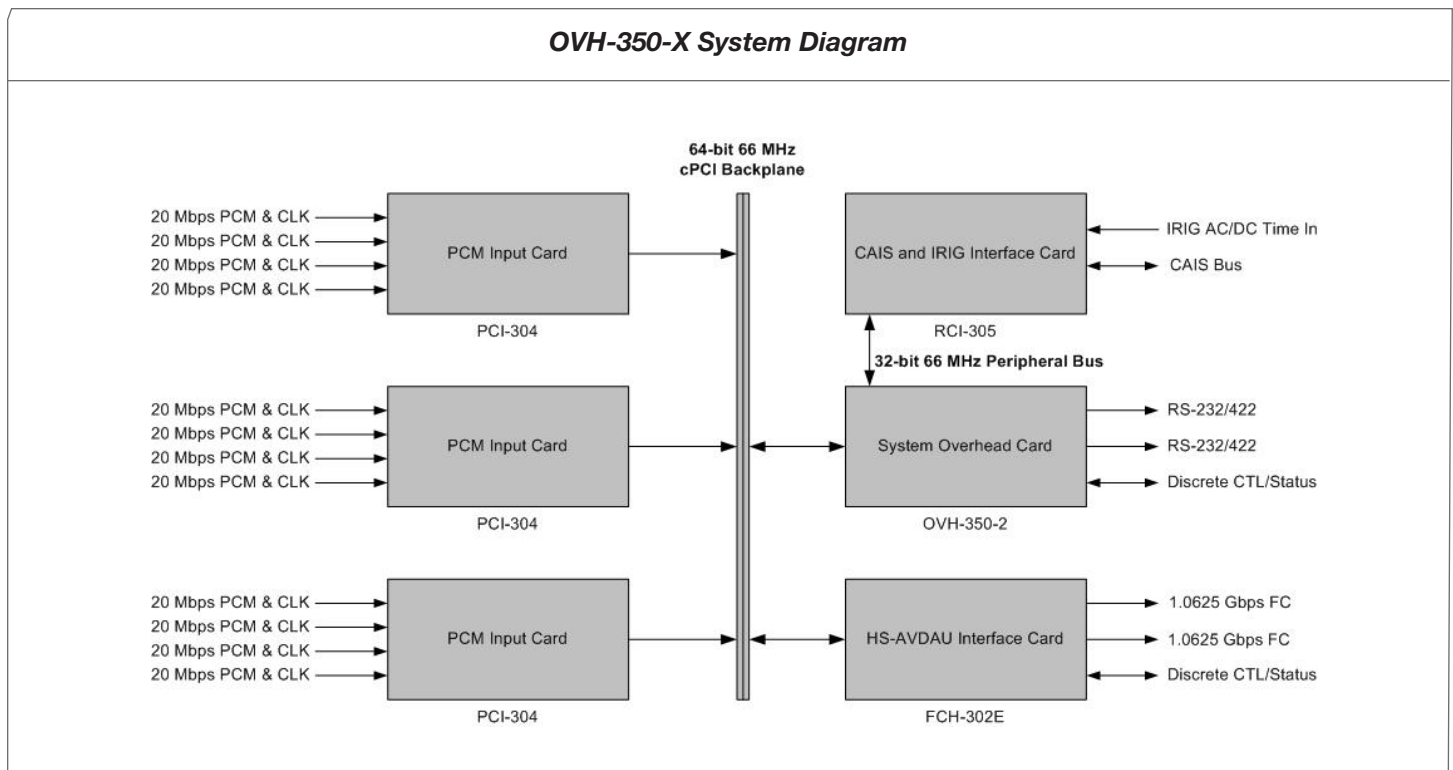
Single-ended input signals: Pulled-up on the board and buffered by a 74LCX245 (or equivalent) buffer

Opto-isolated channels: PS7113L-2A 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: Two 10/100/1000BASE-T ports and one 10/100BASE-T port.

OVH-350-X System Diagram



Ordering Information

AIM-2004 /AIM-400X Overhead Board including mating connectors	OVH-350-1
HS-AVDAU-2004 Overhead Board including mating connectors	OVH-350-2
AIM-2005R and AIM-2006 Overhead Board including mating connectors	OVH-350-31
HS-AVDAU-2006 Overhead Board including mating connectors	OVH-350-32

OVH-350-X Datasheet

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