

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 15, 2026

AIM

AIM API-FDX-2 Dual-Port AFDX Simulator / Monitor PCI Module

The AIM API-FDX-2 is a dual-port AFDX simulator and monitor module for PCI-based test systems. It generates, captures, and analyzes Avionics Full-Duplex Switched Ethernet traffic across two independently configurable 100Mbit Full Duplex Ethernet ports, or operates as a single dual-redundant port. The module supports simultaneous Traffic Simulator and Receiver/Monitor modes, TAP-mode inline analysis, Virtual Link packet capture, frame statistics, and programmable error injection across logical, timing, and protocol layers. Compatibility & Integration Optional software: fdXplorer AFDX Network Analyser and ParaView Parameter Visualiser (Windows). Aumictech offers NIST-traceable calibration and repair for the AIM API-FDX-2. Calibration covers analog input channel accuracy and offset at all gain settings, analog output accuracy, digital I/O logic threshold verification, sample rate and time



MODEL

AIM API-FDX-2

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

API-FDX-2

LISTING

<https://aumictechlabs.com/products/api-fdx-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

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dual-redundant port. The module supports simultaneous Traffic Simulator and Receiver/Monitor modes, TAP-mode inline analysis, Virtual Link packet capture, frame statistics, and programmable error injection across logical, timing, and protocol layers. Technical Specifications Protocol: AFDX (Avionics Full-Duplex Switched Ethernet), ARINC 664 Ports: 2 (configurable as two single ports or one dual-redundant port) Ethernet Interface: 100Mbit Full Duplex Operating Modes: Traffic Simulator, Receiver/Monitor, TAP Mode Time Stamping: IRIG-B Time Code Decoder/Processor with 46-bit absolute time at 1 μ sec resolution Transmit Sequencing: Generic/Replay mode and UDP Port-oriented shaped transmissions Receive Buffering: Chronological mode with circular buffer; UDP/VL-oriented mode with separate queue buffers Frame Field Programming: Virtual Link Identifier, MAC Source Address, IP Structure, UDP Structure, Payload, Sequence Number Payload: User-defined or fixed data with optional time-tag insertion for latency measurement Error Injection: Logical, timing, and AFDX protocol errors Error Detection: Frame header reporting in reception mode Key Features Onboard Application Support Processor (ASP) and multiple RISC processors Scalable memory architecture AFDX-specific Physical Bus Interface (PBI) on piggyback board Configurable payload discard to optimize buffer capacity for frame analysis Frame statistics for AFDX ports Powerful triggering and filtering capabilities Built on AIM's Common Core hardware design Typical Applications AFDX network simulation and validation Aircraft avionics system testing Virtual Link traffic generation and monitoring Inline network tap analysis Protocol compliance verification Compatibility & Integration Optional software: fdXplorer AFDX Network Analyser and ParaView Parameter Visualiser (Windows).

APIFDX Characteristics / Specifications

PARAMETER	VALUE
Model	API-FDX-2
Instrument Type	Dual port AFDX simulator/monitor PCI module
Protocol	AFDX / ARINC 664
Port Count	2
Form Factor	PCI
Manufacturer	AIM
Literature	AIM API-FDX-2 listings
Family	AIM API AFDX PCI modules
Brand Lineage	AIM GmbH
System Role	AFDX PCI simulator/monitor
Use Case	avionics Ethernet ATE
Documentation Type	OEM API-FDX-2 listing
Year Class	AIM API-FDX
Application Class	AFDX test
Vendor Path	AIM
Related Module	AXI1553-2 MIL-STD-1553 VXI
Slot Class	PCI instrument
Documentation Class	OEM API-FDX-2 catalog
Control Class	PCI AFDX API
Companion Role	PCI avionics test PC
Operating Mode	AFDX simulate and monitor
Instrument Class	databus test module
Protocol Class	AFDX ARINC 664
Port Class	dual
Avionics Class	AFDX ATE

PARAMETER	VALUE
Enclosure Class	PCI module

APIFDX Specifications

PARAMETER	VALUE
Applications	AFDX/ARINC 664 simulation and monitoring on PCI-based avionics test stations.
PCI module	ARINC 664 avionics Ethernet
AIM API family	Companion to AXI1553-2 VXI 1553
Technical Specifications	Model: API-FDX-2

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
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Port Count	2
Form Factor	PCI
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Literature	AIM API-FDX-2 listings
Family	AIM API AFDX PCI modules
Brand Lineage	AIM GmbH
System Role	AFDX PCI simulator/monitor
Use Case	avionics Ethernet ATE
Documentation Type	OEM API-FDX-2 listing
Year Class	AIM API-FDX
Application Class	AFDX test
Vendor Path	AIM
Related Module	AXI1553-2 MIL-STD-1553 VXI
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Documentation Class	OEM API-FDX-2 catalog
Control Class	PCI AFDX API
Companion Role	PCI avionics test PC
Operating Mode	AFDX simulate and monitor
Instrument Class	databus test module
Protocol Class	AFDX ARINC 664
Port Class	dual
Avionics Class	AFDX ATE
Enclosure Class	PCI module

Notes

From AIM API-FDX-2 listings (dual-port AFDX simulator/monitor PCI). Link speed, buffer depth, and PCI size/power are on the API-FDX-2 data sheet.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.