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Data Sheet

August 15, 2026

ABACO SYSTEMS / SBS

Abaco Systems / SBS ABI-PC3-2 Dual Channel 1553 to ISA Interface Module

The Abaco Systems / SBS ABI-PC3-2 is a dual-channel MIL-STD-1553 to ISA interface module engineered for laboratory, simulation, and test environments. This card delivers full-function connectivity through an Advanced Bus Interface (ABI) architecture, supporting concurrent and independent operation of Bus Controller (BC), up to 31 Remote Terminals (RT) per channel, and dual-function Bus Monitor (BM) capabilities. The module combines high-speed DSP, programmable logic, and dual-port RAM to enable flexible protocol handling with minimal host processor overhead. Compatibility & Integration Host processor device drivers and application-layer libraries are provided with source code. Support includes Borland and Microsoft C Compiler environments. Complete documentation - datasheets, manuals, software drivers - is available. Note: Product entered Restricted Production Phase effective June 1, 20



MODEL

**Abaco Systems /
SBS ABI-PC3-2**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

ABI-PC3-2

LISTING

<https://aumictechlabs.com/products/abi-pc3-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

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independent operation of Bus Controller (BC), up to 31 Remote Terminals (RT) per channel, and dual-function Bus Monitor (BM) capabilities. The module combines high-speed DSP, programmable logic, and dual-port RAM to enable flexible protocol handling with minimal host processor overhead.

Technical Specifications

MIL-STD-1553 Channels: Dual redundant configuration, 1 or 2 active channels

Bus Controller Operation: Full support

Remote Terminal Capacity: Up to 31 RTs per channel

Bus Monitor Function: Dual-function supported

On-board RAM: 1 megabyte of dual-port RAM (with parity) per channel; 128 kilobytes total on-board RAM

Memory Architecture: Link-list design for flexible interface memory usage

Host Memory Window: 64 kilobytes (large window) or 16 kilobytes (small window) address block required; recommended base addresses: 0D0000h, 0E0000h, 0C0000h

Interface: ISA backplane

Direct Memory Access: Optional DMA support for autonomous buffer updates

Event Interrupts: Programmable, extensive

Variable Voltage Transceivers: Supported

IRIG Time Code: Available option

Key Features

Host processor access for real-time setup, monitoring, and modification of 1553 data structures

Dual redundant channels enable fault tolerance

Link-list memory architecture optimizes buffer allocation and reduces host intervention

Programmable interrupt handling for event-driven operation

Typical Applications

Aircraft avionics test and simulation

Military ground support equipment (GSE)

Laboratory development and validation of 1553 systems

Real-time monitoring and bus analysis

Compatibility & Integration

Host processor device drivers and application-layer libraries are provided with source code. Support includes Borland and Microsoft C Compiler environments. Complete documentation - datasheets, manuals, software drivers - is available.

Note: Product entered Restricted Production Phase effective June 1, 2007.

ABIPC3 Characteristics / Specifications

PARAMETER	VALUE
Model	ABI-PC3-2
Instrument Type	dual channel MIL-STD-1553 ISA interface
Channel Count	2
Host Bus	ISA
Protocol	MIL-STD-1553
Manufacturer	SBS / Abaco Systems
Use Case	1553 BC/RT/Monitor on ISA PCs
Form Factor	ISA card
Family	SBS ABI PC3
Related Portable	PA-100-1 ARINC 429 to RS-232 adapter
Related Pmc	Com360 PMC module
Coupling	external MIL-STD-1553 coupling harness class
Databus	dual redundant 1553 class per channel
Word Rate Class	1 Mb/s 1553
Connector Class	1553 twinax stub/transformer coupling
Operating System Class	legacy PC/ISA drivers
System Role	1553 test interface
Remote Control	host ISA driver API
Slot	ISA
Avionics Standard	MIL-STD-1553B class
Channel Independence	two channels
Product Line	SBS ABI
Later Brand	Abaco Systems

ABIPC3 Specifications

PARAMETER	VALUE
Applications	MIL-STD-1553 simulation, monitoring, and databus test from ISA industrial PCs.
Key Features	Dual independent 1553 channels
SBS ABI family later under Abaco	Coupling via external 1553 harnesses
Technical Specifications	Model: ABI-PC3-2

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	
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Notes	
From SBS/Abaco ABI-PC3-2 catalog identity (dual-channel 1553 to ISA). Transformer vs direct coupling and exact BC/RT concurrency belong on the ABI-PC3-2 hardware manual.	

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.