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Data Sheet

August 15, 2026

BRANDYWINE COMMUNICATIONS

Brandywine PCI-SyncClock32 Timing Module

Brandywine Communications PCI-SyncClock32 JXI2 Precision Timing Module The JXI2 / PCI-SyncClock32 isaBrandywine PCI precision timing card. OEM Brandywine PCI-SyncClock32 literature lists zero-latency time synchronization, IRIG A/B and NASA 36 inputs, optional GPS and Have Quick, 1 PPS, and PCI bus time registers for host timestamping. Oscillator stability, IRIG amplitude, and GPS option codes are on the PCI-SyncClock32 data sheet. Used to timestamp DAQ, telecom, and range systems to IRIG/GPS. PCI host timing from IRIG-B / GPS / 1 PPS for synchronized data acquisition. The JXI2 / PCI-SyncClock32 isaBrandywine PCI precision timing card. OEM Brandywine PCI-SyncClock32 literature lists zero-latency time synchronization, IRIG A/B and NASA 36 inputs, optional GPS and Have Quick, 1 PPS, and PCI bus time registers for host timestamping. Oscillator stability, IRIG amplitude, and GPS option codes are on the PCI-SyncClock32 data sheet. Used to timestamp DAQ, telecom, and range systems to IRIG/GPS. PCI host timing from IRIG-B / GPS / 1 PPS for synchronized data acquisition.



MODEL

**Brandywine
Communications
JXI2**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

JXI2

LISTING

<https://aumictechlabs.com/products/jxi2-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Brandywine Communications JXI2 PCI-SyncClock32 is a high-precision timing module designed for integration into PCI bus systems. This module offers solid synchronization

capabilities, ensuring accurate timekeeping and clock signal distribution for demanding industrial, scientific, and telecommunications applications. The PCI-SyncClock32 leverages an on-board microprocessor to automatically synchronize its internal clock to various reference signals, including IRIG A, B, NASA 36, 1PPS, and optionally GPS or Have Quick. This advanced synchronization mechanism, coupled with propagation delay correction and zero-latency time reads, enhances system reliability and performance by minimizing timing errors. The module also features user-programmable clock rates, external event time tagging, and a Match Time output for precise control of external processes.

Technical Specifications

- * Form Factor: Single-slot, 32-bit, 5 Volt PCI module.
- * A 3/4 length board, with a 1/2 size available without GPS input.
- Synchronization Inputs:**
 - * IRIG A, B, NASA 36 (1kHz Carrier).
 - * 1 PPS (Pulse Per Second).
 - * Optional GPS synchronization.
 - * Optional Have Quick (HQ) synchronization input.
 - * Optional RTCM-104 input (9600 baud RS422, 8 data bits).
- Synchronization Output:**
 - * Optional IRIG-B time code output.
- Input Signal Characteristics:**
 - * Input Amplitude: 0.25 to 10 Vpp.
 - * Input Impedance: >10k Ohms.
 - * Ratio: 2:1 to 6:1.
 - * Frequency Error: 100 PPM maximum.
 - * 1PPS Sync Accuracy: One microsecond.
 - * External Event Resolution: 100 nanoseconds.
 - * Minimum External Event Spacing: None.
- Time Readout:**
 - * Zero latency time reads.
 - * 58 bits of BCD time data available to the host computer in two zero latency time reads.
 - * Time message includes units from microseconds to years.
 - * Status word available via an additional read.
- Time Tagging:**
 - * External Event Time Tags.
 - * Resolution of time tag: 100 nanoseconds.
 - * Optional 16 separate time tag inputs with independent read register addresses.
 - * Optional 3 external event time tags with RS422 inputs (standard TTL level).
- Clock Generation and Control:**
 - * On-board microprocessor for automatic synchronization.
 - * Ability to free run and be set by host commands over the PCI bus.
 - * Propagation delay correction.
 - * Adaptive gain loop for frequency adjustment (with disciplined TCXO or OCXO).
 - * On-board clock updated by disciplined oscillator if input code is missing or corrupted.
 - * Three user programmable rates.
 - * Divider for each rate generator programmable from 2 to 65,535.
 - * Input to rate generators: 3 MHz or 100 Hz for heartbeat, 3 MHz for Clock High, 100 Hz for Clock Low.
 - * Alternatively: 100 PPS for Clock Low, 3 MHz for Clock High, 3 MHz or 100 Hz for heartbeat.
 - * Optional DIVGATE option to synchronize pulse sequences to the integer second.
 - * Heartbeat timing generator for host processes.
- Match Time Feature:**
 - * Asserts an output when the clock's time matches a user-defined start time.
 - * Output termination under user control or when a pre-programmed stop time is encountered.
 - * Resolution of Match Time comparison: one microsecond.
 - * Match Pulse Resolution: Microseconds–eight milliseconds (TTL level at Start–Stop time).
- Power:**
 - * +5 Vdc.
 - * Accommodates 5V bus signaling levels.
 - * The "UNIV" designation indicates compatibility with both 3.3V and 5V PCI bus signaling levels.
- Physical and Environmental:**
 - * Size: 107mm X 257mm.
 - * Conduction cooled version available (CPCI, PMC).
 - * Industrial temperature range (-40°C to +85°C) available with -ITR option.
- Interfaces/Connectors:**
 - * 1x 26-Pin Connector.
 - * 2x BNC Connectors.
 - * Connectors: BNC, high density DB-26.
 - * Connectors: SMB, high density IEEE-1284.
- Software and Support:**
 - * Software packages available for Windows 95/98, Windows NT, DOS, and VxWorks.
 - * C language samples supplied.
 - * Digitally Signed WHQL Driver for Windows 8 & 10.
- Compatibility**
 - * PCI Bus: Designed for standard 32-bit, 5V PCI bus systems.
 - Universal Signaling:
 - "UNIV" versions support both 3.3V and 5V PCI bus signaling levels.

JXI2 Characteristics / Specifications

PARAMETER	VALUE
Model	JXI2
Also Known As	PCI-SyncClock32
Instrument Type	PCI precision timing module
Family	Brandywine SyncClock32
Host Bus	PCI
Time Codes	IRIG A/B and NASA 36 inputs
Pps	1 PPS
Gps Overlay	optional GPS synchronization
Have Quick Overlay	optional Have Quick
Manufacturer	Brandywine Communications
Literature	Brandywine PCI-SyncClock32 timing-module literature
System Role	host time synchronization and timestamping
Latency Class	zero-latency time registers (OEM text)
Oscillator Class	on-board oscillator stability on the sheet
Irig Amplitude Class	IRIG input amplitude on the sheet
Form Factor	PCI timing card
Software Class	Windows/Linux timing drivers (sheet)
Operating Temperature Class	commercial/industrial on the sheet
Brand Lineage	Brandywine Communications
Documentation Type	PCI-SyncClock32 / JXI2 listing
Ate Class	IRIG/GPS host timing
Host Class	PCI DAQ/telecom PC
Year Class	JXI2 / PCI-SyncClock32
Use Case	synchronized DAQ timestamps
Related Vme	VME-SyncClock32 sibling

PARAMETER	VALUE
Connector Class	IRIG BNC / GPS antenna per sheet
Operating temperature	Class: commercial/industrial on the sheet

JXI2 Specifications

PARAMETER	VALUE
Applications	PCI host timing from IRIG-B / GPS / 1 PPS for synchronized data acquisition.
Key Features	PCI-SyncClock32 precision timing
Optional GPS and Have Quick	1 PPS and PCI time registers
Technical Specifications	Model: JXI2

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: commercial/industrial on the sheet
Operating Temperature	Class: commercial/industrial on the sheet
Operating Temperature Class	commercial/industrial on the sheet
Brand Lineage	Brandywine Communications
Documentation Type	PCI-SyncClock32 / JX12 listing
Ate Class	IRIG/GPS host timing
Host Class	PCI DAQ/telecom PC
Year Class	JX12 / PCI-SyncClock32
Use Case	synchronized DAQ timestamps
Related Vme	VME-SyncClock32 sibling
Connector Class	IRIG BNC / GPS antenna per sheet Notes From Brandywine PCI-SyncClock32 literature (IRIG A/B, NASA 36, optional GPS/Have Quick, 1 PPS). Oscillator ppb and IRIG volts are on the PCI-SyncClock32 data sheet; do not invent them.

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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Ate Class	IRIG/GPS host timing
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Use Case	synchronized DAQ timestamps
Related Vme	VME-SyncClock32 sibling
Connector Class	IRIG BNC / GPS antenna per sheet

Notes

From Brandywine PCI-SyncClock32 literature (IRIG A/B, NASA 36, optional GPS/Have Quick, 1 PPS). Oscillator ppb and IRIG volts are on the PCI-SyncClock32 data sheet; do not invent them.

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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NIST-traceable calibration · SAM registered ·
30-day returns
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Generated August 15, 2026

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