

9-Port Mil1394 PCIe OHCI Adapter Card

Triple-Node IEEE-1394b PCIe OHCI Solution

Applications

Vehicle software, hardware, and system emulation labs
Transformer-coupled IEEE-1394b desktop computer host adapter
Flight Control, Mission Systems emulation environments

Benefits

High density 3 PHY 9-port design
Uses industry standard Texas Instruments TSB41BA3 Physical Layer and XIO2213B 1394 OHCI Link Layer Controller
Implemented with active transformer isolation to increase cable length and robustness
No power over 1394b I/O cable eliminates power and ground shift concerns

Features

Three independent OHCI IEEE-1394 Beta nodes
Three ports per node supporting:

- S200 β (245.76Mb/s)
- S400 β (491.52Mb/s)

Switch-configurable maximum connection speed:

- S200 β
- S400 β

Nine active transformer-coupled ports
68-Pin high-density connector
Optional 36 inch, 68-pin to nine 1394 9-pin beta cables
Texas Instruments XIO2213B OHCI Link Layer Controller and TSB41BA3 PHY
4x PCIe Channel PCIe Generation 1, 2, 3 support

Overview

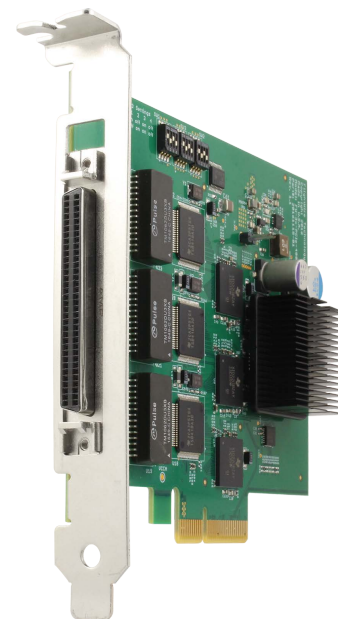
The FW-3x-PCIe-400T is a triple (3 independent nodes) Mil1394 OHCI host adapter with a 4 lane PCIe host interface. The FW-3x-PCIe-400T integrates three IEEE-1394 nodes (channels) on to a single 4-lane PCIe host adapter card. Each of the available nine ports are isolated using AS5643/1 defined active transformers that provide guaranteed minimum signal amplitude.

The FW-3x-PCIe-400T provides Flight Control, Vehicle Management Systems, Mission Systems or Avionics simulation and test applications with a highly integrated solution. Operating at data rates of up to 500Mb/s per channel the triple OHCI solution was designed for high throughput applications.

For applications requiring high node/port count and transformer isolation such as Flight Control, Vehicle Management Systems, Mission Systems or Avionics simulation laboratories that connect to a cross point switch, the FW-3x-PCIe-400T provides the ideal cost performance solution.

The IEEE-1394 connectivity is provided by three Texas Instruments XIO2213B Open Host Controller Interface (OHCI) Link Layer Controllers with three TSB41BA3 PHY devices. The XIO2213B implements PCIe 1.1 x1 host interface and the 1394 Beta PHY is capable of S100 β (transformer option required), S200 β and S400 β operation. An optional 36 inch, 68-pin to nine 1394 9-pin beta cable (FW-68-3CH-9P-9B) connects the FW-3x-PCIe-400T to the 1394 bus. An Avago PEX8714 12-Lane, 5-port PCIe Gen 3 switch is used to interface the three XIO2213B to the host bus through the edge connector.

The industry standard 1394 OHCI interface allows for Windows, Linux, VxWorks, etc. software support.



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Complete Product Support Program

As our customers can attest, the New Wave DV team prides itself on excellent customer support. New Wave DV provides industry standard warranties on its products, but it is the human factor that makes our support so valuable to our customers. Our team takes the time and effort to ensure that the customer experience with our products is a positive one.

Optional Accessories

Custom adapter cable lengths and connectors for air vehicle wire harness connectivity



Request more information.

Our Commitment

New Wave DV is committed to providing the latest innovations in technology, architectures, and techniques to keep our customers one step ahead of the rest. Our products are intended to offer our customers an entirely unique out-of-the-box experience.

Ordering Information

FW-3x-PCIe-400T:

FW-68-3CH-9P-9B:

Technical Specifications

INTERFACES

4x PCIe Channel PCIe Generation 1, 2, 3 support
3 Independent Node, 9-port IEEE-1394 Beta Ports

DATA RATES

S200 β and S400 β

POWER REQUIREMENTS

12V PCIe Power

COMPLIANCE

Mil1394 (AS5643/1) transformer-isolated ports
IEEE-1394 beta (1394b) PHY and OHCI Link Layer
PCIe x4 Generation 1, 2, 3 support

DIMENSIONS

95 mm (width) x 115 mm (length)

TEMPERATURE

Operating: 0°C to 70°C
Storage: -45°C to 85°C

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