NEW

PXI-3920/3910

Next-generation 3U PXI™ Controller for Hybrid PXI-based Testing Systems

Features

- PXI™ specification Rev. 2.2 Compliant
- Scalable computing power
  - Intel® Pentium® M 760 2.0 GHz processor (PXI-3920)
  - Intel® Celeron® M 373 1.0 GHz processor (PXI-3910)
- On-board soldered CPU and memory to provide excellent resistance to shock and vibration
- On-board 512 MB 400/533 MHz DDR2 memory
- Integrated 80 GB SATA hard drive
- CompactFlash® socket for HDD replacement
- Integrated I/O
  - Dual Gigabit Ethernet ports
  - Four USB 2.0 Ports
  - Built-in GPIB (IEEE488) controller
  - Two RS-232/422/485 ports
  - DVI-I video connector
  - High definition audio output and input
  - Trigger I/O for advanced PXI™ trigger function
- Programmable watchdog timer

Introduction

The ADLINK PXI-3920 and PXI-3910 are next-generation PXI™ embedded controllers designed for hybrid PXI-based testing systems. Equipped with Intel® Pentium® M and Celeron® M processors, PXI-3920 and PXI-3910 provide scalable computing power to your PXI™ systems. In addition, these new PXI™ controllers are also designed to be rugged and durable in all kinds of operating environments.

The hybrid PXI-based testing system is usually composed of a PXI™ platform and diversified stand-alone instruments for elaborate testing tasks. PXI-3920 and PXI-3910 provide plenty of interfaces, including GPIB, USB and COM ports, for connecting and controlling instruments. Furthermore, PXI-3920 and PXI-3910 have dual Gigabit Ethernet ports so that users can use one for LAN connection and the other for controlling next-generation LXI instruments.

PXI-3920 and PXI-3910 are cautiously designed to provide maximal robustness. The controllers have cable-free mechanical construction and are extremely durable. The CPU and memory chips are soldered on the PCB to increase reliability in shock and vibration prone environments. The aluminum-copper composite heat sink helps to disperse heat uniformly to maintain a stable operating temperature.

Combining a variety of instrument control interfaces and reliable mechanical and electronic design, the ADLINK PXI-3920 and PXI-3910 are well endowed to meet the needs of your hybrid PXI-based testing systems.

Notice
This PXI™ controller implements rear I/O. PXI™ controllers with rear I/O were designed to operate with a matching rear transition module which provides internal or external chassis I/O.
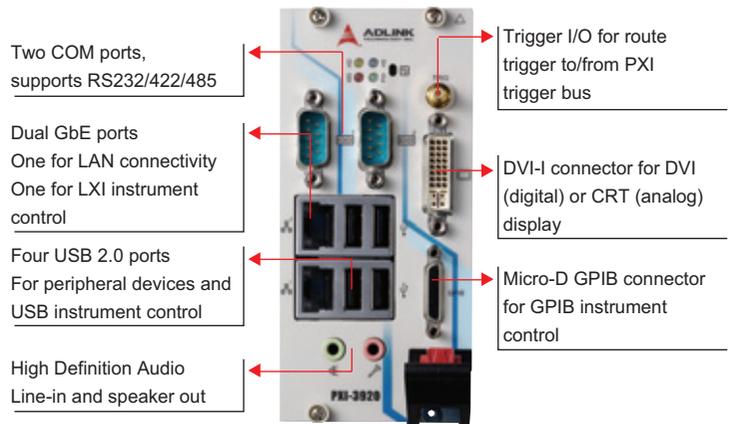
Warning
If this PXI™ controller is used with a chassis that contains a rear transition module that does not match the controller, the rear I/O functionality may not operate and may cause damage to the PXI™ controller or the rear transition module.

PXI-3920

PXI-3910

Two COM ports, supports RS232/422/485

Dual GbE ports
One for LAN connectivity
One for LXI instrument control

Four USB 2.0 ports
For peripheral devices and USB instrument control

High Definition Audio
Line-in and speaker out

Trigger I/O for route trigger to/from PXI trigger bus

DVI-I connector for DVI (digital) or CRT (analog) display

Micro-D GPIB connector for GPIB instrument control

Specifications

Core Features

- Processor
  - PXI-3920: Intel® Pentium® M 760 2.0 GHz processor
  - PXI-3910: Intel® Celeron® M 373 1.0 GHz processor
  - Supports 400/533 MHz front side bus (FSB)

- Chipset
  - Intel® 915 GM Graphic Memory Control HUB
  - Intel® I/O Controller Hub 6 Mobile (ICH6-M)

- Video
  - Intel® GMA 900 graphic media accelerator
  - ◆ DVI
    - Single channel TMDS via SDVO to DVI controller
    - Supports up to 1600 x 1200 resolution
  - ◆ CRT
    - Analog CRT route to DVI-I connector on the faceplate
    - Supports up to 2048 x 1536 resolution
  - ◆ LVDS (for rear I/O only)
    - Single 18-bit LVDS channel route to rear transition module
    - Supports LCD backlight control
  - DVI-I connector for both digital and analog video signal outputs

- Memory
  - Supports dual-channel DDR2 SDRAM, 400/533 MHz
  - 512 MB on-board soldered memory
  - One DDR2 SO-DIMM socket for memory extension

I/O Connectivity

- Hard Drive
  - 80 GB SATA hard drive, 5400 RPM
- Ethernet
  - Dual Gigabit Ethernet controllers
  - Two RJ-45 connectors with speed/link/active LED on the faceplate
- USB
  - Four USB 2.0 ports on the faceplate
- GPIB
  - On-board IEEE488 GPIB controller
  - Micro-D 25-pin connector on the faceplate (GPIB cable not included)
- Serial Port
  - Two 16C550 UART compatible COM ports on the faceplate
  - Supports RS-232, RS-422 and RS-485, configurable by jumper setting
- Audio
  - Supports high definition audio input/output
  - Two audio jacks on the faceplate for line-in and speaker-out
- Trigger I/O
  - SMB connector on the faceplate to route an external trigger signal to/from PXI™ trigger bus
- CompactFlash® socket
  - Type II CF Socket, supporting PIO and DMA modes

Physical

- Dimension: 3-slot 3U PXI™ module
- Slot requirements: 1 system slot and 2 controller expansion slots
- Weight: 0.9 kg

Environment

- Operating temperature: 0 to 55˚C
- Storage temperature: -20 to 80˚C
- Relative humidity: 5 to 95%, non-condensing

Shock and Vibration

- Functional shock: 30 G, half-sine, 11 ms pulse duration
- Random vibration
  - Operating: 5 to 500 Hz, 0.5 G_{RMS}, 3 axes
  - Non-operating: 5 to 500 Hz, 2.46 G_{RMS}, 3 axes

Certificate

- EMC/EMI: CE, FCC Class A

Cable Accessory

- **ACL-IEEE488-MD1**
  - Connectors: Micro-D 25 pins to IEEE488 24 pins
  - Length: 1 M

Ordering Information

- **PXI-3920**
  3U PXI™ Pentium® M 760 2.0 GHz system controller with DVI-I/GbE/GPIB

- **PXI-3910**
  3U PXI™ Celeron® M 373 1.0 GHz system controller with DVI-I/GbE/GPIB

- **ACL-IEEE488-MD1**
  25-pin micro-D to GPIB cable, 1 meter length

1 Software Solutions

2 PXI/ CompactPCI Platforms

3 Modular Instrument

4 PXI/ CompactPCI Modules

5 Bus Interface

6 GPIB Interface

7 PCI/PCI Express® DAQ Cards

8 PCI/PCI Express® DIO Cards

9 PC/104-Plus Modules

10 ISA DAS/ DIO Cards

11 System Product

12 Wiring Termination Boards

13 Motion, HSL, Vision, COM & GEME

14 Remote I/O Modules

15 Industrial Computers