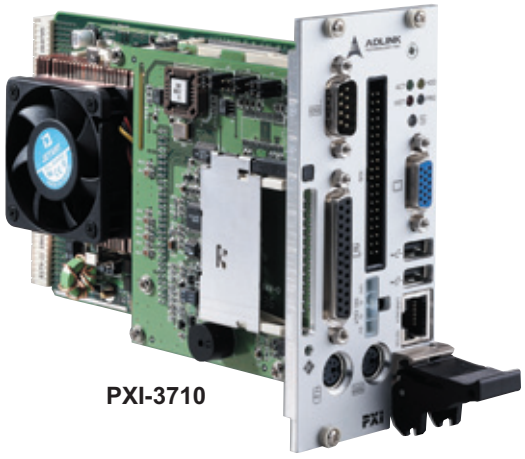
PXI-3710

3U PXI Intel® Pentium® III System Controller with VGA/DVI/Ethernet/CF

Features

- PICMG 2.0 CompactPCI specifications R3.0 compliant
- PICMG 2.8 PXI specifications Rev. 2.2 compliant
- PICMG 2.1 R1.0 CompactPCI Hot Swap specifications compliant
- Design for socket370, Pentium® III CPU, FSB 100/133, CPU frequency up to 1.4 GHz
- Supports up to 512 MB SO-DIMM SDRAM
- One 44-pin EIDE (primary IDE) and one 40-pin EIDE (secondary IDE) connector on front panel
- Two CompactFlash Interface for HDD and FDD replacements; CF2 supports hot-swappable CF card functionality
- Build-in two USB ports, one serial port (COM1), and one parallel port on front panel
- VGA output on front panel supporting 1600x1200 resolution
- One 10/100 Mb Ethernet port by Intel ICH2 controller with 82562 PHY
- Supports 7 bus-master PCI devices on PXI/CompactPCI bus
- Programmable watchdog timer
- Build-in 2.5" low-profile HDD (40 GB, min)
- Optional floppy disk drive (PXI-3710F)



PXI-3710

Introduction

ADLINK PXI-3710 series is a cost-effective 3U PXI controller in ADLINK PXI product line. This product is designed to meet the high-performance requirements for embedded computing. The PXI-3710 system controller complies with PXI specifications Rev. 2.2 and features mature technologies such as up to 1.4 GHz Pentium® III CPU support, and hot-swappable CompactFlash cards. The extraordinary reliability and high performance of the PXI-3710 provides the most cost-effective choice for test and measurement applications.

By using an Intel Embedded Socket-370 Pentium® III CPU and Intel® 815E chipset, the PXI-3710 provides both long life cycleand complete driver support to meet the needs of the majority industrial applications. The PXI-3710 architecture supports the following operating systems: Windows NT, Windows 2000/XP, Linux, and VxWorks. With its rugged and industrial package, the PXI-3710 is ideal for harsh environments.

The PXD-3710/F supports rear I/O and is compatible with PXI-3710. There are one DVI/LVDS/TTL FPD video output, one USB port and one com port on the rear I/O transition module (PXD-R3000).

Notice:

The PXD-3710 is compliant with PXI Specification Rev. 2.2 and supports a rear I/O module for internal signal transmission. To use PXD-3710 with an unmatched rear I/O transition module may cause damage to the system. We strongly recommend that the ADLINK PXI chassis with rear I/O support should be used with PXD-3710 if you need rear I/O functions.



PXI-3710F



PXD-R3000

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Specifications

General PXI/CompactPCI features
- PICMG 2.0 CompactPCI specifications R3.0 compliant
- PXI specifications Rev. 2.2 compliant
- PICMG 2.1 R1.0 CompactPCI Hot Swap specifications compliant

CPU/Cache
- Support Socket370 CPU, include the following models: Intel socket370 Pentium® III, CPU frequency up to 1.4 GHz
- Front side bus (FSB) frequency: 100/133 MHz

Chipset
- Intel® 815E Chipset (in Intel Embedded Roadmap)

VGA
- 3D graphics visual enhancement
- 24-bit 230 MHz RAMDAC
- Up to 1600x1200 resolution (256 colors at 85 Hz refresh rate)

BIOS
- Award PnP BIOS advanced by ADLINK
- Write protection and anti-virus capabilities
- DMI BIOS supports Intel pre-boot execution environment (PXE)

Host Memory
- Supports up to 512 MB SO-DIMM SDRAM
- Standard package: 512 MB SDRAM

IDE Ports
- Primary IDE bus: one 44-pin ATA-100 EIDE interface on board to support one slim type EIDE hard disk drive
- Secondary IDE bus: provides one 50-pin CompactFlash type II connector (CF1: jumper-selectable as master or slave) and one 40-pin ATA-100 IDE connector on the front panel

USB Interface
- Two USB ports on the front panel, Specification Rev. 1.1 compliant
- Over-current protection, with polyswitch resetable fuse @ 500 mA

Onboard Ethernet
- One RJ-45 ethernet port on the front panel
- LAN controller integrated in ICH2 and Intel 82562EM PHY
- IEEE 802.3 10Base-T/100Base-TX compatible
- Supports Intel pre-boot execution environment (PXE) for remote booting in Windows NT/2000

Onboard Supper I/O
- Chip: Winbond W83627HF
- LPT: one high-speed bi-directional SPP/EPP/ECP parallel port
- FDD: one high-density FDD connector
- COM Ports
  - 16C550 UARTs compatible COM port
  - COM1 available on front panel, RS-232/422/485 jumper selectable (With RS-485+ Auto-Direction Technology)
  - ESD protection to 2 kV
- Keyboard and Mouse interface: one PS2 keyboard connector and one PS2 mouse connector
- Watchdog Timer
  - Programmable intervals: 1-255 seconds or 1-255 minutes
  - The watchdog timer time out will generate an interrupt to NMI or RESET, selectable in BIOS menu
- Hardware Monitoring: Winbond W83627HF, monitors CPU temperature, system temperature and DC Voltages

Flash Disk Supporting
- Supports two CompactFlash type II sockets. CF1 socket is based on internal secondary IDE interface. CF2 socket is hot-swappable interface on the front panel

LED
- System active LED: Green LED will light after POST, and turns dark when system power-off
- IDE LED: Yellow LED flashes when accessing IDE ports
- WDT LED: Red LED is dark when power on. After enabling the WDT via software, the LED will flash. When WDT timeout occurs, the LED will stay on
- General purpose LED: This is a programmable BLUE LED

Form Factor
- PXI-3710: Standard 3U PXI/CompactPCI, 12 HP wide (3-slot)
- PXI-3710F: Standard 3U PXI/CompactPCI, 16 HP wide (4-slot)
- PXD-3710: Standard 3U PXI/CompactPCI with rear I/O, 12 HP wide (3-slot)
- PXD-3710F: Standard 3U PXI/CompactPCI with rear I/O, 16 HP wide (4-slot)

Rear I/O for PXD-3710/3710F
- Form factor: 3U PXI Rear I/O with cPCI-J2 connector, 8 HP wide (2-slot)
- Rear panel
  - One USB connector
  - One DB-9 connector for COM2
  - One DVI output connector
  - Reserve one 20-pin connector to support LVDS pixel data transmission output, LVDS supports resolution from flat panel display up to UXGA
  - Reserve one 44-pin connector to support 24-bit TTL FPD output

Environment
- Operating ambient temperature: 0 to 50˚C
- Storage temperature: -20 to 80˚C
- Humidity: 5 to 95% non-condensing
- Shock: 15 $G_{peak\text{-}to\text{-}peak}$, 11 ms duration, non-condensing
- Vibration
  - Non-operation: 1.88 G_{RMS}, 5 Hz to 500 Hz
  - Operation: 0.5 G_{RMS}, 5 Hz to 500 Hz

Certificate and Test
- CE, FCC Class A
- HALT (temperature and vibration stress)

Power Consumption

Configurations	+5 V	+3.3 V	+12 V	-12 V
Pentium® III 1.4 G	7 A	3.5 A	560 mA	10 mA
Celeron® 600	4.2 A	3.5 A	560 mA	10 mA

OS Board Support
- Windows2000/XP/NT/9x, Linux, and VxWorks

Ordering Information

- **PXI-3710F**
  3U PXI system controller with Intel® Pentium® III 1.26 GHz, 512 MB SDRAM, 40 GB HDD and slim-type FDD (4-slot version)
- **PXI-3710**
  3U PXI system controller with Intel® Pentium® III 1.26 GHz, 512 MB SDRAM, 40 GB HDD (3-slot version)
- **PXD-3710F**
  3U system controller with Intel® Pentium® III 1.26 GHz, 512 MB SDRAM, 40 GB HDD and slim-type FDD (4-slot version)
- **PXD-3710**
  3U system controller with Intel® Pentium® III 1.26 GHz, 512 MB SDRAM, 40 GB HDD (3-slot version)

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