PXIe-3985

3U Intel® Core™ i7-4700EQ Quad-Core Processor-based PXI Express Controller

Features

- PXI-5 PXI Express hardware specification Rev.1.0 compliant
- Superior computing power from Intel® Core™ i7-4700EQ 2.4 GHz processor, 3.4 GHz maximum in single-core, Turbo Boost mode
- Dual channel DDR3L SODIMM up to 16 GB 1600 MHz
- Maximum system throughput 8 GB/s
- PXI Express link capability
  - Four links configuration: x4 x4 x4 x4
  - Two links configuration: x16 x8
- Integrated SATA storage: 500 GB (or greater) HDD or 240GB (or greater) SSD
- Integrated I/O
  - Dual USB 3.0 ports
  - Dual Gigabit Ethernet ports
  - Four USB 2.0 ports
  - Built-in GPIB (IEEE488) controller
  - Dual DisplayPort video connectors
  - Trigger I/O for advanced PXI™ trigger functions
  - One RS-232/422/485 D-SUB9 connector

Introduction

The ADLINK PXIe-3985 PXI Express embedded controller, based on the fourth generation Intel® Core™ i7 processor is specifically designed for hybrid PXI Express-based testing systems, delivering maximum computing power for a wide variety of testing and measurement applications.

Combining state-of-the-art 2.4GHz quad-core Intel® Core™ i7-4700EQ processors (3.4GHz maximum in single-core, Turbo Boost mode), and up to 16 GB of 1600 MHz DDR3L memory, the PXIe-3985 utilizes four separate computing engines on a single processor, enabling execution of numerous independent tasks simultaneously in a multi-tasking environment. With a configurable PCIe switch, the PXIe-3985 can support four links x4 or two links x16 and x8 PXI Express link capability, with maximum system throughput of up to 8 GB/s.

The ADLINK PXIe-3985 provides ample interface flexibility, including two DisplayPort connectors, allowing connection to two monitors, dual USB 3.0 connections for high speed peripheral devices, dual Gigabit Ethernet ports, with one for LAN connection and the other for controlling LXI instruments, four USB 2.0 ports for peripheral devices and USB instrument control, and a Micro-D GPIB connector for GPIB instrument connection, for hybrid PXI-based testing systems control.

Supported Operating System

- Windows 7 & 10
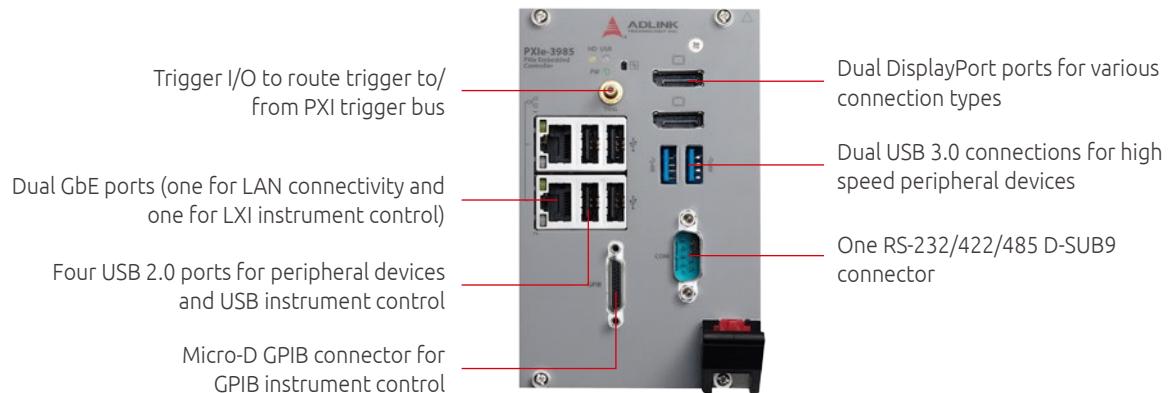
Ordering Information

- **PXIe-3985**
  3U PXI Intel® Core™ i7-4700EQ 2.4GHz system controller with 4 GB Memory & 500 GB HDD
- **PXIe-3985/M16G**
  3U PXI Intel® Core™ i7-4700EQ 2.4GHz system controller with 16 GB Memory & 500 GB HDD
- **PXIe-3985/M16G/SSD**
  3U PXI Intel® Core™ i7-4700EQ 2.4GHz system controller with 16 GB Memory & 240 GB SSD

Cable Accessory

- **ACL-IEEE488-MD1-A**
  25-pin Micro-D to GPIB Cable, 1 Meter Length
- **DisplayPort to VGA cable**
  Displayport (Plug) to D-DUB 15PIN (F) cable, L=150mm
- **DisplayPort to DVI cable**
  Displayport (Plug) to DVI (F) cable, L=150mm
- **DisplayPort to HDMI cable**
  Displayport (Plug) to HDMI (F) cable, L=150mm

*One DisplayPort to DVI-D cable ships with the ADLINK PXIe-3985 unit

Product Illustration

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

Dual GbE ports (one for LAN connectivity and one for LXI instrument control)

Four USB 2.0 ports for peripheral devices and USB instrument control

Micro-D GPIB connector for GPIB instrument control

Dual DisplayPort ports for various connection types

Dual USB 3.0 connections for high speed peripheral devices

One RS-232/422/485 D-SUB9 connector

Specifications

Model Name	PXIe-3985
Core Features	
CPU	Intel® Core™ i7-4700EQ 2.4 GHz
DMI	5 GT/s
Chipset	Intel® QM87 Express chipset
Memory	Up to 16 GB SO-DIMM memory Supports dual-channel DDR3L SDRAM, 1333/1600 MHz
Display	
DisplayPort	3840 x 2160 @ 60 Hz
DVI	1920 x 1200 @ 60 Hz DisplayPort adapters to other standards are available, maximum resolution achieved is dependent on the adapter chosen
I/O Connectivity	
Hard Drive[1]	500 GB (or greater) SATA hard drive2
Solid State Drive[1]	240GB (or greater) SATA SSD
Ethernet	One Intel® I210 Gigabit Ethernet Controller and one Intel® I217 Gigabit Ethernet Two RJ-45 connectors with speed/link/active LED on the faceplate
USB	2 x USB 3.0 and 4 x USB 2.0 on the faceplate
GPIB	Onboard IEEE488 GPIB controller Micro-D 25-pin connector on the faceplate (ACL-IEEE488-MD1-A cable required)
Trigger I/O	SMB connector on the faceplate to route an external trigger signal to/from PXI trigger bus
Storage	
HDD	500 GB (or greater) SATA hard drive
SSD	240 GB (or greater) SATA SSD
Mechanical and Environmental	
Dimensions	3U/4-slot PXI/CompactPCI standard
Slot Requirements	1 system slot plus 3 controller expansion slots
Weight	1 kg (2.2 lbs)
Operating Temp.	0 to 50°C (32°F to 122°F) (w/ HDD) 0 to 55°C (32°F to 131°F) (w/ SSD)
Storage Temp.	-20 to 70°C (-4°F to 158°F)
Relative Humidity	5 to 95%, non-condensing
Shock	30 G, half-sine, 11 ms pulse duration
Vibration	Operating: 5 to 500 Hz, 0.5 GRMS, 3 axes Non-operating: 5 to 500 Hz, 2.46 GRMS, 3 axes
Emissions Compliance	EN 61326-1, FCC Class A
CE Compliance	Immunity: EN 61326-1

PXIe-3985 Block Diagram

ADLINK
Leading **EDGE COMPUTING**