PXI-3980

3U Intel® Core™ i7-2715QE 2.1 GHz Quad-Core Processor-based PXI Controller

Features

- PXI-1 Hardware Specification Rev. 2.2 compliant
- Superior computing power
  - Intel® Core™ i7-2715QE 2.1 GHz processor,
    3.0 GHz maximum in single-core, Turbo Boost mode
- Supports dual display with VGA + DVI
- Dual channel DDR3 SODIMM
  - Up to 16 GB 1333 MHz
- Maximum system throughput 132 MB/s
- Integrated SATA storage
  - 500 GB (or greater) HDD or 240 GB (or greater) SSD
- Integrated I/O
  - Dual USB 3.0 ports and four USB 2.0 ports
  - Dual Gigabit Ethernet ports
  - Built-in GPIB (IEEE488) controller
  - Trigger I/O for advanced PXI™ trigger functions
- Programmable watchdog timer

Introduction

The ADLINK PXI-3980 PXI embedded controller, based on the second generation Intel® Core™ i7 processor is specifically designed for hybrid PXI based testing systems, delivering a rugged yet stable platform for a wide variety of testing and measurement applications.

Combining state-of-the-art 2.1 GHz quad-core Intel® Core™ i7-2715QE processors (3.0 GHz maximum in single-core, Turbo Boost mode), and up to 16 GB of 1333 MHz DDR3 memory, the PXI-3980 utilizes four separate computing engines on a single processor, enabling execution of numerous independent tasks simultaneously.

The ADLINK PXI-3980 provides ample interface flexibility, including 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
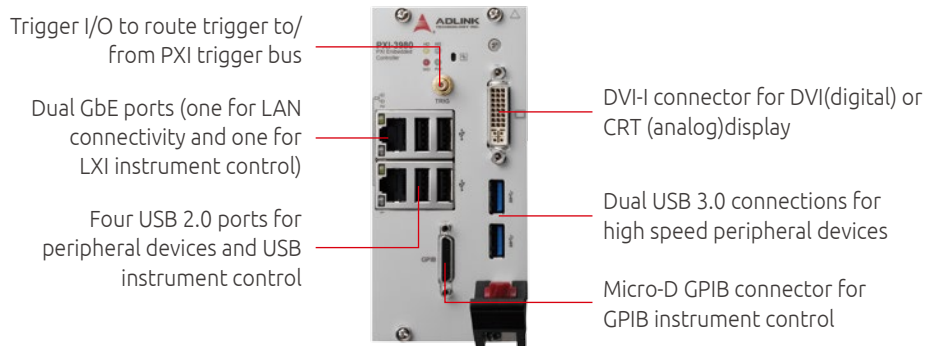
- Windows 7 & 10

Ordering Information

- **PXI-3980**
  3U PXI Intel® Core™ i7-2715QE 2.1 GHz system controller with 4 GB memory & 500 GB HDD
- **PXI-3980/M8G**
  3U PXI Intel® Core™ i7-2715QE 2.1 GHz system controller with 8 GB memory & 500 GB HDD
- **PXI-3980/SSD**
  3U PXI Intel® Core™ i7-2715QE 2.1 GHz system controller with 4 GB memory & 240 GB SSD
- **PXI-3980/M8G/SSD**
  3U PXI Intel® Core™ i7-2715QE 2.1 GHz system controller with 8 GB memory & 240 GB SSD

NOTE: 16 GB memory configuration available on request, please contact ADLINK Sales

Cable Accessory

- **ACL-IEEE488-MD1-A**
  25-pin Micro-D to GPIB Cable, 1 Meter Length

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

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

Dual USB 3.0 connections for high speed peripheral devices

Micro-D GPIB connector for GPIB instrument control

PXI-3980 Front Panel

Specifications

Model Name	PXI-3980
Core Features	
CPU	Intel® Core™ i7-2715QE 2.1 GHz
DMI	5 GT/s
Chipset	Intel® QM67 Express chipset
Memory	Up to 16 GB SO-DIMM memory Supports dual-channel DDR3 SDRAM, 1066/1333 MHz
Display	
DVI	DVI output provides up to 1920 x 1200 bpp at 60Hz resolution or up to 2048 x 1536 bpp at 75Hz
VGA	Analog VGA output provides up to 1920 x 1200 bpp at 60Hz resolution or up to 2048 x 1536 bpp at 75Hz
I/O Connectivity	
Ethernet	One Intel® 82579LM Gigabit Ethernet PHY and One Intel® I210 Gigabit Ethernet Controller 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	On-board 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
Mechanical and Environmental	
Dimensions	60.5 mm x 128.7 mm x 213.2 mm (2.35" x 5.01" x 8.31")
Slot Requirements	1 system slot plus 2 controller expansion slots
Weight	1.1 kg (2.3 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, 0.21 Grms, 3 axes (w/HDD) 5 to 500 Hz, 0.3 Grms, 3 axes (w/SSD) Non-operating: 5 to 500 Hz, 2.46 Grms, 3 axes (w/ both HDD & SSD)
Emissions Compliance	EN 61326-1, FCC Class A
CE Compliance	Immunity: EN 61326-1

Note1. Depends on model ordered

PXI-3980 Block Diagram

| Channel A SODIMM | DDR3L 1600MHz |
| Channel B SODIMM | DDR3L 1600MHz |

Intel® Core™ i7-2715QE 2.1 GHz processor

FDI DMI

GbE I/F — GbE controller I217 — PCIe x1

GbE I/F — GbE controller I210 — PCIe x1

GPIB — GPIB controller — USB2.0

Front Panel

USB3.0 x2

USB2.0 x4

DVI-I

Intel® QM67 Express Chipset

PCIe x1 — PCIe-PCI bridge — PCI bus — PXI connector

SATA — storage

SMBus

Trigger Signal — Trigger controller — Trigger Signal