

APAX-6572 APAX-6572R

Intel® Atom™ D510 1.66 GHz, 2 GB RAM
Controller with 3 x LAN, 2 x COM, VGA

Redundant Control System

NEW



RoHS
Compliant
2002/95/EC

CE FCC

Features

- Intel Atom D510 1.66 GHz CPU
- Onboard 2 GB DDR2 DRAM
- Redundant system with two controllers (master and slave) to ensure continuous I/O control
- Expands I/O by connecting with APAX-5000 I/O modules
- Supports Windows WES7, WES2009 and Windows CE
- Provides C/C++ and .NET library for I/O control and communication
- Supports real-time control tasks under Windows CE through ProConOS
- 2 x RS-232/422/485 (automatic flow control)
- 3 x 10/100/1000 Mbps LAN, 4 x USB 2.0

Introduction

The APAX-6572 is a high performance controller with an Intel Atom D510 CPU. By installing Windows WES7, WES2009 or Windows CE operating system, it becomes an application ready platform. It is an ideal open control platform which can be combined with APAX I/O modules, and features flexible I/O expansion, real-time I/O control, and powerful computing and networking capability through various interfaces.

The APAX-6572R is a redundant system with two controllers, both equipped with high performance CPUs to backup and monitor each other, offering excellent reliability for I/O control. Master controller performs I/O processing, while the slave controller is automatically synchronizing with master controller to update the latest database information. When the master controller fails, the slave controller automatically takes over the control responsibility in a short time.

Specifications

General

- **Certification** CE, FCC Class A
- **Cooling System** Fanless
- **Mounting** DIN-rail, Wall mount (panel mount)
- **Dimension (W x H x D)** 222 x 155 x 140 mm
- **Enclosure** Aluminum + SECC, ABS + PC (I/O)
- **Weight** 2.6 kg (APAX-6572)
2.8 kg (APAX-6572R)
- **Power Consumption** 35 W @ 24 V_{DC} (APAX-6572, Typical, Without I/O modules)
40 W @ 24 V_{DC} (APAX-6572R, Typical, Without I/O modules)
- **Power Requirement** 10 ~ 36 V_{DC} (e.g +24 V @ 1 A) (Min. 24 W), AT
- **Watchdog Timer** Programmable 7-tier event handler, from 1 ~ 255 seconds for each tier
- **Switchover Timer** ≤50 ms (For APAX-6572R)

System Hardware

- **CPU** Intel Atom D510 1.66 GHz
- **Memory** 2 GB DDR2 DRAM (onboard)
- **Battery Backup SRAM** 1 MB
- **Watchdog Timer** Programmable 7-tier event handler, from 1 ~ 255 seconds for each tier
- **LED Indicators** Power, CF, LAN (Active, Status), Serial (Tx, Rx)
- **Display** VGA (DB15 connector), up to 1600 x 1200 @ 85Hz
- **Audio** Line in, Line out, Mic in
- **Storage** 1 x internal Type I/II CompactFlash card slot

Software

- **Operating System** Windows WES7, WES2009, Windows CE
- **Control Software** C/C++ and .NET library with utility
KW MultiProg (development), ProConOS (kernel)
- **Remote Management** Built-in Advantech DiagAnywhere agent
Modbus/ASCII master/slave mode
KW MultiProg (development), ProConOS (kernel)

I/O Expansion

- **Built-in I/O Module Slots** 4 (APAX-6572)
3 (APAX-6572R)
- **Connected I/O Modules** 32 (max.)*
- **Digital Signals** 2048 (max.)
- **Analog Signals** 512 (max.)

Communication

- **Serial Ports** 2 x RS-232/422/485 (supports automatic RS-485 data flow control)
- **Serial Baud Rate** 50 ~ 115.2 kbps
- **LAN Ports** 3 x RJ-45 Ports, 10/100/1000 Mbps
- **USB Ports** 4 x USB 2.0

Environment

- **Operating Temperature** -10 ~ 50°C (when mounted vertically)
- **Storage Temperature** -40 ~ 70°C
- **Operating Humidity** 20 ~ 95% (non-condensing)
- **Storage Humidity** 0 ~ 95% (non-condensing)
- **Shock Protection** 50 G @ wall mount, half sine, 11 ms (Conforms to IEC 60068-2-27)
- **Vibration Protection** 2 Grms @ 5 ~ 500 Hz (Random, operating, 1hr/axis) (Conforms to IEC 60068-2-64)

Ordering Information

- **APAX-6572-AE** Intel Atom D510 1.66 GHz, 2 GB RAM Controller
- **APAX-6572R-AE** Redundant Control System

*APAX DI/O modules can use ID number 0 ~ 31, while AI/O modules and counter modules can only use ID numbers 0 ~ 15