

# APAX-5580

Intel® Core™ i7/i3/Celeron DIN-Rail PC Controller w/ 2 x GbE, 2 x mPCIe, VGA

**PRELIMINARY**



SUSIAccess RoHS COMPLIANT 2002/95/EC CE FCC

## Features

- 4th Generation Intel® Core™ i7/i3/Celeron Processors up to 1.7 GHz with 4GB/8GB DDR3L Memory
- 2 x GbE, 4 x USB 2.0/3.0, 1 x RS-232 /422/485, 1 x VGA, Audio
- Dual power input and UPS support
- Compact with Fanless Design
- Supports Fieldbus Protocol by iDoor Technology
- 3G/GPS/GPRS/Wi-Fi Communication by mPCIe
- Chassis Grounding Protection
- LAN Redundancy (Teaming)
- Fault-Protected RS-485 Transceivers With Extended Common-Mode Range
- One button system recovery
- 10 year lifetime RTC battery

## Introduction

Advantech's APAX-5580 is a powerful DIN-Rail PC Controller with an Intel Core i7/i3/Celeron CPU. It is the ideal open control platform to be combined with APAX I/O modules, and features flexible I/O expansion, real-time I/O control, network capability through various interfaces, and support dual power input and UPS module for robust power system. It also has a built-in the standard mini PCI express interface for wireless communication and Advantech's iDoor technology. The APAX-5580 is the best solution for data gateway, concentrator and data server applications, its seamless integration with I/O can save your costs and fulfill a diverse range of automation projects.

## Specifications

### General

- Certification** CE, FCC
- Dimensions (W x D x H)** 128 x 106 x 110 mm
- Form Factor** Regular Size
- Enclosure** Aluminum Housing
- Mounting** DIN-Rail
- Weight (Net)** 1.8 kg (4.0 lbs)
- Power Requirement** 24 V<sub>DC</sub> ± 20%
- Power Consumption** 28 W (Typical), 72 W(Max)
- OS Support** Microsoft® Windows 7/8, Linux Kernel 3.X

### System Hardware

- BIOS** AMI UEFI 128Mbit Flash BIOS
- Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec
- Processor** Intel® Core™ i7-4650U ULT 1.7GHz Haswell Dual Core, 4MB L2  
Intel® Core™ i3-4010U ULT 1.7GHz Haswell Dual Core, 3MB L2  
Intel® Celeron 2980U ULT 1.6GHz Haswell Dual Core, 2MB L2
- System Chip** Integrated Intel 8 Series Chipset
- Memory** On-board 4GB (8GB optional)
- Graphics Engine** Intel® HD Graphics 5000/4400
- Ethernet** Intel® i218-IT GbE, 802.1Qav, IEEE1588/802.1AS, 802.3az  
Intel® i218-LM GbE, Intel® AMT, IEEE1588/802.1AS, 802.3az  
LEDs for Power, battery, LAN (Active, Status), Tx/Rx and HDD  
1 x mSATA, 1 x SD, 1 x SD (for OS backup)  
1 x Full-size mPCIe slot, 1 x Half-size mPCIe slot, mPCIe 2.0
- LED Indicators**
- Storage**
- Expansion**

### I/O Interfaces

- Serial Ports** 1 x RS-232/422/485, DB9, 50-115.2kbps
- LAN Ports** 2 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000Base-T Fast Ethernet
- USB Ports** 4 x USB Ports (2 x USB 2.0, 2 x USB 3.0 compliant)  
1 x internal USB
- Display** 1 x VGA, supports 1920 X 1080 @ 60 Hz 24 bpp
- Audio** Line-Out
- Power Connector** Dual power input and UPS support
- Grounding Protection** Chassis Grounding

### Environment

- Operating Temperature** - 10 ~ 60°C (-4 ~ 140°F) @ 5 ~ 85% RH with 0.7m/s airflow
- Storage Temperature** - 40 ~ 85°C (-40 ~ 185°F)
- Relative Humidity** 10 ~ 95% RH @ 40°C, non-condensing
- Shock Protection** Operating, IEC 60068-2-27, 50G, half sine, 11ms
- Vibration Protection** Operating, IEC 60068-2-64, 2Grms, random, 5 ~ 500Hz, 1hr/axis (mSATA)

## Ordering Information

- APAX-5580-4C3AE** Intel Celeron 1.6 GHz with 4 GB memory, no external expansion slot
- APAX-5580-433AE** Intel Core i3 1.7 GHz with 4 GB memory, no external expansion slot
- APAX-5580-473AE** Intel Core i7 1.7 GHz with 4 GB memory, no external expansion slot

## Accessories

- APAX-5343** AC to DC APAX Power Supply
- APAX-5402F** 2 expansion slots with APAX Bus and PCI express
- APAX-5402E** 2 expansion slots with PCI express only

## Application Software

	<p>Version : V3.0 or above</p> <p>An innovative remote device management software, allowing efficient remote monitoring, quick recovery &amp; backup, and real-time remote configuration, to create a more intelligent and interconnected embedded computing solution.</p>
	<p>Version : V7.1 or above</p> <p>WebAccess, as the core of Advantech's IoT solution, is full web browser-based software package for HMI and SCADA software. All HMI and SCADA software features including: Animated Graphics Displays, Real-time Data, Control, Trends, Alarms and Logs, are available in a standard web browser. WebAccess is built around the latest internet technologies. With its open architecture, vertical domain applications can easily be integrated.</p>