# **APAX-5580**

## Intel® Core™ i7/i3/Celeron DIN-Rail IPC w/2 x GbE, 2 x mPCle, VGA



#### **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 mPCle
- 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

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## 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

Dimensions (WxDxH) 128 x 106 x 110 mm **Form Factor** Regular Size Aluminum Housing **Enclosure** 

Mounting DIN-Rail 1.8 kg (4.0 lbs) 24 V<sub>DC</sub> ± 20% Weight (Net) Power Requirement

28 W (Typical), 72 W(Max) Power Consumption **OS Support** Microsoft® Windows 7/8, Linux Kernel 3.X

#### **System Hardware**

AMI UEFI 128Mbit Flash BIOS

**Watchdog Timer** Programmable 256 levels timer interval, from 1 to 255 sec Processor Core™ i7-4650U ULT 1.7GHz Haswell Dual Core,

Intel® Core™ i3-4010U ULT 1.7GHz Haswell Dual Core,

Intel® Celeron 2980U ULT 1.6GHz Haswell Dual Core, 2MB

System Chip Integrated Intel 8 Series Chipset Memory On-board 4GB (8GB optional) **Graphics Engine** Intel® HD Graphics 5000/4400

Intel® i210-IT GbE, 802.1Qav, IEEE1588/802.1AS, 802.3az Intel® i218-LM GbE, Intel® AMT, IEEE1588/802.1AS, Ethernet

802 3az

LED Indicators LEDs for Power, battery, LAN (Active, Status), Tx/Rx and

1 x mSATA, 1 x SD, 1 x SD (for OS backup) Storage

1 x Full-size mPCle slot, 1 x Half-size mPCle slot, mPCle Expansion

#### I/O Interfaces

Serial Ports 1 x RS-232/422/485, DB9, 50~115.2kbps

2 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000Base-T Fast LAN Ports Ethernet

USB Ports 4 x USB Ports (2 x USB 2.0, 2 x USB 3.0 compliant )

1 x internal USB

1 x VGA, supports 1920 X 1080 @ 60 Hz 24 bpp Display

OibuA 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

**Storage Temperature** 

Relative Humidity Shock Protection

annow - 40 ~ 85°C ( -40 ~ 185°F) 10 ~ 95% RH @ 40°C, non-condensing Operating, IEC 60068-2-27, 50G, half sine, 11ms Operating, IEC 60068-2-64, 2Grms, random, 5 ~ 500Hz,

**Vibration Protection** 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-5430

APAX-5343

APAX-5402-E2A1AE

APAX-5402-E2A0AE SQF-SMSM4-XG-S8E AC to DC APAX Power Supply

APAX Battery Module

2 expansion slots with APAX Bus and PCI express

2 expansion slots with PCI express only

SQFlash 820 series mSATA MLC 16/32/64/128G

## **Application Software**

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Version: V3.0 or above

An innovative remote device management software, allowing efficient remote monitoring, quick recovery & backup, and real-time remote configuration, to create a more intelligent and interconnected embedded computing solution.



Version: V7.1 or above

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.



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