APAX-5580CDS

High-performance SoftLogic PC-based controller, empowered by CODESYS

NEW

Features

- Preinstalled CODESYS V3 Control RTE based on WES7
- Supports PLCopen IEC 61131-3 standard programming languages
- Full integration with all Advantech remote I/O module systems
- Two alternative display options through local VGA and web browser
- Supports real-time fieldbus protocol through onboard LAN port and iDoor technology: PROFINET, Ethernet/IP, EtherCAT, CANopen and Modbus

APAX-5580 Control IPC

- Optimized system BIOS setting for real-time control
- DIN-rail fanless compact design
- Dual power input and relay indicator
- One button system recovery
- 10 year lifetime RTC battery
- Supports 2MB MRAM

EtherCAT   PROFINET   EtherNet/IP   CANopen   Modbus   CODESYS

TAIWAN EXCELLENCE 2015   RoHS COMPLIANT 2002/95/EC   CE   FC

Introduction

Advantech's APAX-5580CDS series is a high performance control IPC with Core™i/Celeron® multi-core processor, Microsoft Windows embedded 7 Pro and CODESYS Control Runtime & Visualization. This PC-based control system allows users to develop their solutions by PLCopen IEC-61131-3 standard programming languages and flexible fieldbus options such as PROFINET, Ethernet/IP, EtherCAT, CANopen, and Modbus and provides local VGA and browser-based (HTML5) visualization to do on-site operation and remote diagnosis via your smart device. The APAX-5580 with CODESYS combines hardware and software flexibility and stability, to fulfill the needs of different control application.

CODESYS Real-time SoftLogic Control Software

- **Development Tool**   CODESYS V3
- **Language**   PLCopen object-oriented IEC 61131-3 (FBD, LD, IL, ST, SFC)
- **Runtime**   Control RTE
  Control RTE with Softmotion
  under Windows embedded 7 Pro 32bit
- **Visualization**   Target visualization (local HMI)
  Web visualization (HTML5)
- **OPC Server**   OPC DA
- **Protocol**   EtherCAT MASTER
  PROFINET MASTER
  Ethernet/IP MASTER
  CANopen, MASTER
  Modbus/RTU
  Modbus/TCP

APAX-5580 Open Control Platform

General

- **Certification**   CE, FCC, BSMI, UL
- **Dimensions(W x H x D)**   117 x 148.5 x 106 mm
- **Mounting**   DIN-Rail, Wall mount
- **Power Requirement** $24V_{DC} \pm 20\%$
- **Power Consumption**   28W (Typical), 72W (Max)
- **OS**   Windows Embedded 7 Pro 32bit

System

- **Processor**   Intel Core i7-4650U 1.7GHz, 4MB L2
  Intel Core i3-4010U 1.7GHz, 3MB L2
  Intel Celeron 2980U 1.6GHz, 2MB L2
- **Memory**   On-board 4GB (i7 with 8GB)
- **Ethernet**   Intel i210-IT GbE, 802.1 Qav, IEEE1588/802.1AS, 802.3az
  Intel i218-LM GbE, Intel AMT, IEEE1588/802.1AS, 802.3az
- **Storage**   1 x mSATA, 1 x SD

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
- **USB Ports**   4 x USB Ports (2x USB2.0, 2x USB3.0 compliant)
  1 x internal USB
- **Display**   1 x VGA, support 1920 X 1080 @ 60 Hz 24bpp

Ordering Information

- **CDS-APAX5580-R023A** APAX-5580-433AE with CODESYS RTE, no HMI
- **CDS-APAX5580-R320A** APAX-5580-433AE with CODESYS RTE, TV* and WV**
- **CDS-APAX5580-M120A** APAX-5580-433AE with CODESYS Softmotion w/ TV*

* TV = Target Visualization

** WV = Web Visualization

Note: Other configurations available on request

Accessories

- **PWR-244-AE**   96W AC to DC power adapter
- **1702002600**   Power Cable US Plug 1.8 M
- **1702002605**   Power Cable EU Plug 1.8 M
- **1702031801**   Power Cable UK Plug 1.8 M
- **1700000596**   Power Cable China/Australia Plug 1.8

iDoor Modules for APAX-5435

- **PCM-24R2PE-AE**   Intel i350, GbE, PoE IEEE 802.3af, PD, RJ45 x 2
- **PCM-2300MR-AE**   MR4A16B, 2MByte
- **PCM-26D1PB-AE**   Hilscher netX100 FieldBus, ProfiBus, DB9 x 1
- **PCM-26D2CA-AE**   SJA1000 CANBus, CANopen, DB9 x 1
- **PCM-24S2WF-AE**   802.11 a/b/g/n 2T2R w/ BT4.0, Atheros AR9462
- **PCM-24S33G-AE**   6-band HSPA Cellular Module, SIM holder+GPS
- **PCM-26R2PN-MAE**   Hilscher netX100 FieldBus, PROFINET, RJ45 x2
- **PCM-26R2EC-MAE**   Hilscher netX100 FieldBus, ETHERCAT, RJ45 x2

Expansion Modules

- **APAX-5402-E2A1AE** 2 expansion slots with APAX bus
- **APAX-5490-IP4AE**   4x RS-232/422/485 Communication Module
- **APAX-5435**   APAX iDoor expansion Module
- **APAX-5430**   APAX SATA interface Module