APAX-5522PELX/CE

IEC 61850-3 Certified PAC with Marvel XScale® CPU

NEW

RoHS COMPLIANT 2002/95/EC CE FCC

Features

- IEC 61850-3 and IEEE-1613 certified for substation automation application
- XScale PXA270 520 MHz processor
- Wide temperature support (-20 ~ 70°C)
- Supports up to 32 APAX I/O modules
- Time-stamp function support
- WinCE/Linux OS support
- 2 x LAN ports support
- 2 x RS-232 ports support (DCD, RTS, RX, TX, GND)
- AutomationX aX5 S/W support

Introduction

IEC 61850-3 standards specify a number of "hardened" characteristics that network products should meet to withstand the potentially electromagnetically harsh substation environment: such as immunity to electrical surge, electrostatic discharges and other phenomena that would cause non-hardened devices to fail. The APAX-5000PE series modules are IEC 61850-3 compliant and can be used in power & energy applications e.g. smart substation for good protection features and also support automationX aX5 software.

Specifications

General

- **Certification** CE, FCC class A
  Dielectric Strengh and Impulse Tests: IEC60255-5:2000
  EMC Immunity: Electronic Discharge: IEC 61000-4-2:2001,level3
  Radiated RF Immunity: IEC 61000-4-3:2002, 10 V/m
  IEEE C37.90.2-1995, 35 V/m
  Fast Transient, Burst Immunity: IEC 61000-4-4:1995 + A1:2001, 4kV @ 2.5KHz
  Surge Immunity: IEC 61000-4-5:2001, 2kV line to line, 4kV line to earth
  Conducted RF Immunity: IEC 61000-4-6:2004, 10 Vrms
  Magnetic Field Immunity: IEC 61000-4-8:2001, 1000 A/m for 3 seconds, 100 A/m for 1 minute
  DOMF: IEC 61000-4-10:2001, 30 A/m @ 100KHz and 1 MHz
  EMC Emissions
  Conducted Emissions: EN 55011: 2002, Class A
  Radiated Emissions: EN 55011: 2002, Class A
- **Dimensions (W x H x D)** 30 x 139 x 100 mm
- **Enclosure** ABS+PC
- **Weight** 180 g
- **Connectors** DB-9
- **Power Consumption** 2 W @ 5 V_{DC} (typical)

System Hardware

- **CPU** Intel XScale PXA270 520 MHz
- **Memory Flash** 32 M bytes, SDRAM 64 M bytes
- **Battery Backup Memory** 256 KB file system, 256 KB direct access
- **Real-time Clock** Yes
- **Watchdog Timer** Yes
- **Storage** 1 x Type II CompactFlash card slot

Software

- **OS Support** Linux Kernel 2.6

I/O Expansion

- **Connected I/O Modules** 32 (max.)*
- **Digital Signals** 768 (max.)
- **Analog Signals** 192 (max.)

Communication (Ethernet)

- **LAN** 2 x RJ-45 Port, 10/100 Mbps

Communication (Serial)

- **Medium** 2 x Isolated RS-232 (GND, TxD, RxD, RTS, DCD)

Environment

- **Operating Temperature** -20 ~ 70°C (mounted vertically)
- **Storage Temperature** -40 ~ 85°C
- **Relative Humidity** 5 ~ 95% (non-condensing)

Ordering Information

- **APAX-5522PELX** IEC 61850-3 Compliant PAC with Marvel XScale CPU, Linux

Accessories

- **APAX-5002L** 2-slot Backplane Module
- **APAX-5350** APAX Power Filter for APAX PE modules