# APAX-5522PELX/CE IEC 61850-3 Certified PAC with Marvel XScale® CPU



#### • Supports up to 32 APAX I/O modules Time-stamp function support

WinCE/Linux OS support

**Features** 

- 2 x LAN ports support
- 2 x RS-232 ports support (DCD, RTS, RX, TX, GND)

IEC 61850-3 and IEEE-1613 certified for substation automation application

AutomationX aX5 S/W support

XScale PXA270 520 MHz processor

Wide temperature support (-20 ~ 70°C)

# 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 DB-9
- Connectors
- Power Consumption 2 W @ 5 V<sub>DC</sub> (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, l inux

#### Accessories

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