

# SmartPRO X5 UNIVERSAL PROGRAMMER



- Hi-Speed USB 2.0
- High-speed FPGA driven hardware for ultra-fast programming
- "Auto-Sense" Function
- Powerful Multiprogramming

## Outstanding "Value for Money" Programmer

>>>>>Excellent circuit structure , best programming quality and protection designed to give the best service to you ... <<<<<<



### Introduction

**SmartPRO X5** was designed to be the most cost effective solution in supporting today's and tomorrow's device programming challenges. Provides very competitive price with excellent hardware design for reliable programming. Offer outstanding "value for money" in this class.

**SmartPRO X5** incorporates a high speed CPU, Hi-Speed USB 2.0, and powerful FPGA structure to meet programming challenges today and into the future.

**SmartPRO X5** combines ICP downloading with stand PC hosted operation for high speed, flexible programming of devices in design engineering and production applications.

**SmartPRO X5** ergonomic design and software interface maximizes operator efficiency by combining speed and scalability in one system.

### Features & Benefits

#### ➤ High Performance

SmartPRO X5 exclusive feature saves you time, frustration, and money.

Programs high-density flash memory devices at near theoretical minimum programming time.

Design for versatile multi-applications: You have freedom to choose the optimum mode for your programming demands.

- Auto mass-program: The unique "Auto-Sense" function will sense the inserted device and program the device properly without touching any key..
- Stand PC hosted operation for R&D and engineering.
- ICP download mode: Smart X5 directly supports in-circuit programming using a dedicated ICP connector and an included cable. ICP mode is ideal for design engineering and low-volume production.

Flexible, Reliable Support for the Latest Devices and Packages

Support over 10000 devices with low voltage devices down to 1.8V(Vdd). Most of programmable devices in DIP, SDIP, SOP, SSOP, TSOP, PLCC, QFP, or BGA package types can be programmed on a default DIP48 socket or through an appropriate ADAPTER/CONVERTER.

## ➤ **Advanced hardware features**

- Includes high speed CPU and high-speed FPGA driven hardware for ultra-fast programming.
- Use the USB2.0 port to connect to PC: A faster, more reliable communications interface between the programmer and the host PC.

**Wide IC Coverage:** Low-voltage programming supports voltages down to 1.8V allowing you to program the newest devices on the market.

**High Reliability:** Self-Test system check hardware status any time.

**Continuity Test:** Pin continuity and wrong chip insertion check prevent chips from accident damage.

## ➤ **Software designed with you in mind Get to work immediately**

The programming software's easy-to-use graphical interface eliminates your learning curve you don't need the manual! Friendly operation interface combines many powerful functions with ease to use.

**Project manager save option:** project minimizes the whole process of device selection, file loading, device configuration setting, operation option etc. to a single step.

**Device Check:** Give a warning automatically according to the actual ID read when a mistake type is selected.

**CRC Verify:** File CRC check and detect large file offset automatically.

**Serial number generator:** Serial number can be generated and programmed into Code or Data locations automatically in anyway customer specified.

**Algorithm Updates:** SmartPRO X5 provides universal, highly flexible device programming support for today's memory, microcontroller and logic devices from all the major manufacture. We release new device support software from our web site weekly.

## ➤ **A powerful multiprogramming**

Attaching of more SmartPRO X5 programmers to the same PC (through USB2.0 port) is achieved a powerful multiprogramming system with as much chips supported as SmartPRO X5 can and without obvious decreasing of programming speed. It is important to know, there is a concurrent multiprogramming - each programmer works independently and each programmer can program different chip, if necessary.

## ➤ **Ideal for Engineering as well as Production Environment**

Wide device covering range, flexible future expansion capability help users to achieve challenging time-to-market goal.

## Specification

### ➤ General

**Power:** By external power supply  
AC input voltage: 100-240V/47-63Hz  
DC output voltage: 12V/2A

**Dimensions:** 205mm×165mm×45mm (L×W×H)

**Mass:** 650 g (1.43 Pounds)

### ➤ Hardware

**Interface Port:** USB2.0 port

Includes high speed CPU and High-speed FPGA driven hardware for ultra-fast programming.

**Calibration:** automatic self-calibration

**Diagnostics:** pin continuity test, RAM, ROM, CPU, pin drivers, power supply, communications, cable, calibration verification timing

### ➤ Software

**Algorithms :**Uses manufacturer approved algorithms

**File Type:**It can handle file in binary/machine code , Intel Hex, Techtronics, Signetics, Motorola, ASCII,MS-DOS fn. COM & EXE , DRAFT etc.

**Device Supported:** including, but not limited to low voltage, PROM, EPROM, EEPROM, Flash EEPROM, Microcontrollers, GAL. SRAM, TTL/CMOS device test.

**S/W update:** Virtually supports you, and free life-time software updates are available!

### ➤ PIN Drivers

**Quantity:** 48-pins standard  
**Rise Time:** 6ns

**VCC Range:** 1.8~10V

**Icc Range:** 0~800mA continuously programmable

**VPP Range:** 2.5~25V

**Ipp Range:** 0~400mA continuously programmable

**Clocks:** continuously variable 1Hz~48MHz

**Protection:** overcurrent shutdown, power failure shutdown

**Independence:** pin drivers and waveform generators are fully independent and concurrent

### ➤ PC System

**Requirements:** Windows NT/2000/XP

## Standard Accessories Included

**SmartPRO X5 universal programmer**  
**Software on CD-ROM**  
**User manual**  
**USB cable**

**ICP downloading cable**  
**AC/DC adaptor**  
**1-year hardware warranty**

## SmartPRO Programmiers

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