*LabTool-48UXP Intelligent Universal Programmer*

Features

- USB or parallel port interface with auto-switch power
- Support 5V and 3.3V low voltage devices, 1.8V chip support through low voltage adapter.
- Less then 2 seconds per Mbit Programming speed for high density flash chip.
- No adapter required for DIL chip up to 48-pin
- 48-pin universal pin driver and current limit
- Auto-sense/ Self programming with statistical report
- Device insertion /continuity check
- Universal adapter for 44-pin PLCC/ QFP/ TQFP/PSOP and 40/48 TSOP
- Supports OS : Windows 95/98/Me/2000, windows XP and NT (Parallel port)
                   Windows 98SE/Me/2000, windows XP (USB port)
- Automatic EPROM/ Flash ID search
- Serialization for Memory/£gP chip
- Memory buffer H / L byte swap
- Project file save / load function
- User-selectable verify Vcc with one or two-pass verify voltage
- Automatic file format detection and conversion
- User-changeable programming parameters
- 1 years warranty
- Software update via web

¡@

¡@
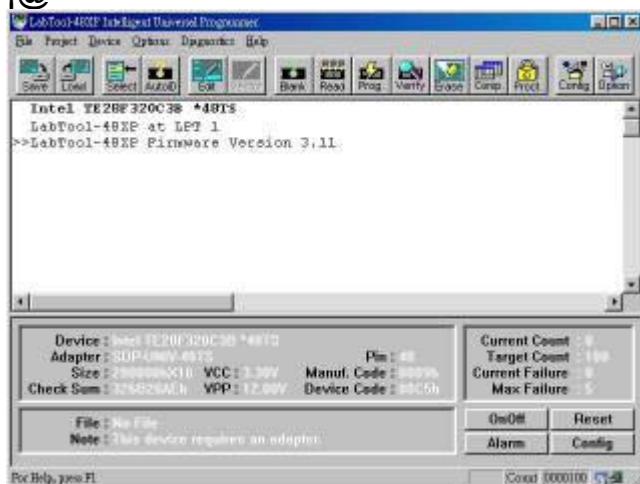
⭐ Universal pin driver--No adapter required for DIL devices

The LabTool-48UXP features universal pin driver, each pin can supply four different voltage, ground, it also can be configurable as TTL high/low levels with pull-high/pull-low, high-speed clock and high impedance. This advanced pin design lets you program any DIL device of up to 48 pins without needing an adapter.

⭐ Unbeatable programming speed

The LabTool-48UXP's on-board intelligence reduces system overhead to a minimum. The LabTool-48UXP has 100% more performance then its predecessor product in program the high density flash chip, it can program a Intel 32 M bit flash chip in less then 60 seconds.

Programming Speed Test Report 🔴

¡@	Intel 28F320C3B	AMD 29DL323DB
Blank check	18.6 sec	18.9 sec
Program	57.5 sec	76.2 sec
Verify	32.5 sec	33.0 sec
Total	108.6 sec	128.1 sec

The LabTool-48UXP is much faster than its competitors, making it much more productive with today's high density, multi-megabit memory devices.

Technological innovation and performance leadership

⭐ Device insertion and contact checks--No mistakes!

The LabTool-48UXP performs device insertion and contact checks before it programs each device. It can detect poor pin contact and devices inserted upside down or in the wrong position. This function protects your pocketbook by preventing expensive chip damage due to operator error.

⭐ EPROM and Flash memory ID detection and Search

Many EPROM and Flash memories have a build-in device ID and manufacturer ID. The LabTool-48UXP can read the device's ID by press hot key to detect the ID and compare its database and determined the chip¡¦s correct vendor and product number. This feature is especially useful with secondhand chips and devices that have had their part number accidentally (or intentionally) removed (this function only applied to 28 pin or 32 pin EPROM and Flash).

⭐ Auto-sensing and self-programming

To meet mass-production requirements the LabTool-48UXP has implemented new patented technology in both its hardware and software. After entering the Mass-production Mode, the production line operator inserts a device into the ZIF socket. An LED on the LabTool-48UXP indicates the device is ready and the operator simply removes it and replaces it with a new one. No formal training is necessary adding flexibility and saving time and money. In addition, the

LabTool-48UXP's auto-sensing feature ensures the device has been inserted correctly and then automatically programs the device. Furthermore, in the mass-production mode the system keyboard is automatically disabled preventing the operator from making any inadvertent mistakes.

⭐ Project file save and load

User can create and save a project file which contains device selection, buffer data and all the programming set-up options, this project file can be called upon at any time for future use without having to go through the setting up procedure again, your design file can easily pass to production department without making any mistake.

⭐ Serialization function

If your memory devices need individual serial numbers with different increment sequence and initial value, the LabTool-48UXP has an Auto Increment function. This simply increments the serial numbers in the buffer each time a new device is inserted. This saves time and money.

⭐ User-selectable verify voltage, one or two-pass verification

The LabTool-48UXP lets you select the verify voltage after you have programmed the device, e.g., Vcc, Vcc ¡Ó5%, Vcc ¡Ó10%. The Vcc voltage can be 2.0V to 6.5V. This feature ensures that your device has been programmed properly, preventing failures due to programming errors and ensuring data retention.

⭐ Non-DIL device support through versatile converters

The LabTool-48UXP's universal pin driver capability lets it program all 48-pin DIL devices, including all single-chip Micro-controllers, without DIL-to-DIL adapters. However there are many different packages beside DIL package, such as PLCC, SOP, TSOP, QFP and SDIP. We have developed over 100 different adapters to support these special-package devices.

⭐ Software update via web

The LabTool-48UXP has additional safety features such as a built-in current limit and pin continuity check function. This prevents damage from faulty chips during the programming cycle. Software updates via web.

⭐ Universal 44-pin PLCC, QFP, PSOP and TQFP adapter supports 44-pin chips

The universal pin driver on the LabTool-48UXP enables you to support all 44-pin chips such as EPLD, EPROM, Flash, EPLD and Micro-controllers. You need only one 44-pin universal adapter which eliminates the need to buy multiple adapters and saves money. Moreover, different package devices within 48 pins will only require one adapter.

⭐ Low voltage chip support

The LabTool-48UXP support 2.0V ~ 5.0V logic level input/output, and it can supply 2.0V~21V analog voltage (such as VCC). Support lower then 2.7V low voltage chip such as 1.8V also possible

by special low voltage adapter on top of its 48 pin ZIF socket.

Specifications

⭐ Socket and pin driver

¡´ **48-pin DIL/ ZIF socket with receptacle for 8-pin to 48-pin 300/ 600-mil devices.**
¡´ **Four DACs for Vcc, Vpp1, Vpp2 and Vpp3 with 8-bit resolution. Software controllable rises time and current limit protection.**
¡´ **Logic driver supports pull-up/ pull-down or high impedance on all 48 pins with 2.0V-5V level. Device support**
  Memory : PROM, EPROM, EEPROM, Flash, Serial PROM, NVRAM
¡´ **Logic: PAL, GAL, CEPAL, PEEL, CDLD, EPLD,**
¡´ **Others: OTP/Flash Micro-controllers**

⭐ Device operations

Read, blank check, device insertion/ contact check, verify, checksum, EPROM ID check, compare, erase chip, function test, program, memory protect, device configuration setting, device search, edit buffer, mass production mode, modify vector, serialization, H/L byte buffer swap, buffer search.

⭐ PLD vector tester

¡´ **Accepts JEDEC test vectors up to 48 pins**
¡´ **2500V/usec. rise time**
¡´ **File format conversion**
¡´ **JEDEC, POF, Binary, Intel HEX, Intel EXT HEX, Motorola S, HP 64000ABS, Straight Hex and TEKTRONIC Hex, Automatic detection and conversion.**

⭐ PC system requirements

¡´ **Operating system: Windows 95/98/Me,2000, Windows XP or Windows NT (Parallel port)**
                      Windows 98SE/Me,2000,Windows XP (USB port)
¡´ **Processor: Pentium and above**
¡´ **128 MB RAM minimum, 512 MB recommended**
¡´ **Hard disk with 100 MB free space**
¡´ **Parallel port with EPP mode or USB port**
¡´ **CD ROM driver**

⭐ General

¡´ **Power: 100 to 240 VAC, auto-switching**
¡´ **Frequent range : 47 to 63 Hz**
¡´ **Power consumption : 25 W**
¡´ **Operating temperature: 5 to 45 ¢J (41 to 113¢K)**
¡´ **CE & LVD certified**
¡´ **Weight 1.8KG**

⭐ *Download* **the most update LabTool-48UXP software for a trial.**

⭐ **LabTool-48UXP All device list.**

For more information, please contact:

Advantech Equipment Corporation
Fl. 7, No. 98, Ming-Chuan Road, Shing-Tien City, Taipei, Taiwan, R.O.C.
Tel: 886-2-2218-2325
FAX: 886-2-2218-2435
Email: citron.chang@advantech.com.tw

¡@