



Advin Systems Inc.

UK Distributor For Advin Is Datapro Solutions Limited

Tel: +44 (0)845 094 0051 Fax: +44 (0)845 094 0052 Email:sales@datapro solutions.co.uk Web:www.datapro solutions.co.uk



- *Industry's Most Universal Low Cost Programmer*
- *Proven Industrial Quality*
- *Free Lifetime S/W Updates via WEB*
- *True Low Voltage Support down to 1.8v*
- *CE Certified*
- *Gang/Set Expandable*

PILOT-MVP UNIVERSAL PROGRAMMER

UNIVERSAL AND FLEXIBLE:

- One unit supports all types of programmable devices: PALs, GALs, parallel and serial PROMs, E/EPROMs, FLASH memories, micro controllers, Altera MAX devices, AMD MACHs, Lattice isp/pLSI, WSI PSDs, Xilinx EPLDs, and many others.
- Provides true low voltage support for new low voltage devices which require low voltages at VCC *and* at digital inputs. (i.e. supports devices which are not 5-volt tolerant.)
- Software controlled from desktops or notebooks based on 386, 486, Pentium, or compatibles. Easy new device updates via software from floppies, BBS or Internet (WEB).
- Pins are controlled by programmable software pin drivers.
- Device technologies supported include CMOS, BiCMOS, NMOS, HMOS, EE erasable, Flash, bipolar, ECL, etc.
- PLCC, LCC, TSOP, PSOP, SOIC, QFP and TQFP devices optionally supported by reliable Advin modules, not from third party vendors.
- Comes in three affordable models: MVP/28, MVP/32 and MVP/40, upgradable from one to another.
- Expandable to support high pin-count devices up to 84 pins.

COMPLETE MEMORY/MICRO DEVICES SUPPORT:

- Supports EPROMs from 2716 up to the newest 64 megabit (and beyond) EPROMs and FLASH memories.
- Accepts various file formats including Intel HEX, Intel Extended Hex, Motorola S-records, POF, ASCII and binary.
- Virtual memory feature: makes use of RAM and disk space on your PC. No RAM expansion modules needed, even for large devices.
- Automatic splits (1 to 2, 1 to 4, 1 to 8) for both byte-wide and word-wide memories.

- Supports all programming algorithms including Standard, Fast, Intelligent, Quick-Pulse, Flashrite, etc.-- and exactly according to IC manufacturers' specifications.
- Supports advanced device functions such as individual sector-protection and un-protection, S/W write protection, programming of configuration words, etc.
- Functions provided include: read, program, verify, sector protect, edit, checksum, file offset, buffer offset, partial address programming, ASCII buffer edit, etc.
- Release control features: automatically generates serial numbers, checksums, and date/time stamping information for memory devices.

COMPLETE LOGIC DEVICE SUPPORT:

- Accepts POF files from ALTERA, standard JEDEC outputs from CUPL, MINC, ABEL, PALASM, ORCAD, etc.
- Test vector function (functional testing) automatically reports failed pins and states.
- Convenient screen-based editing of fuse values and test vectors.
- Other functions include: read, program, erase, verify, security, checksum, automatic PAL to GAL JEDEC files conversion, etc.

SOFTWARE USER-FRIENDLY:

- Powerful PC-based software gives you more power, utilities and conveniences than stand-alone programmers.
- Full screen human interface provides plenty of useful information.
- Batch/macro facility allows you to put frequently-used commands into command files. It also means allowing non-technical personnel to easily perform repeated command sequences.
- Free lifetime software updates: simply download from BBS or WEB.

HARDWARE USER-FRIENDLY:

- Interfaces to PC through standard parallel printer port. No need to open up your PC, remove and reinstall special interface cards every time you move the programmer from one PC to another.
- Parallel interface eliminates the slowness and clumsiness of serial communication during normal operation.
- New device support via software, not firmware.
- Reverse-device insertion check warns operator of accidental reverse placement of devices.
- Continuity check warns operator of misplaced device or broken device pins.
- Universal power supply automatically accepts input voltages from 85v AC to 264v AC. No need to switch between 110/230.

DEPENDABLE AND RELIABLE:

- All programming signals are generated from programming instrument, not from a card inside the PC. Signals are noise-free and accurate.
- Metal chassis shields programmer from potentially damaging external static charges.
- Built-in power supply provides adequate and isolated power for programmer, avoids power deficiency problems common in smaller programmers.
- All sockets used have gold-plated contacts and are of the best quality in the industry.
- Designed and manufactured by a company that has over ten years of experience in making and supporting programming instruments.

- Made in Silicon Valley, California, USA, in proximity to many of the world's leading semiconductor companies.

GUARANTEE, WARRANTY AND SUPPORT:

- 30-day unconditional money-back satisfaction guarantee.
- 1 year limited hardware warranty, including parts and labor.
- Factory-direct technical support.
- Free lifetime software updates via 24-hour BBS or WEB.

GANG/SET EXPANDABLE:

- Available gang modules from Advin expand the machine into a Gang/Set programmer capable of programming eight EPROMs, EEPROMs, FLASH, or micros. Package types include DIP, PLCC, TSOP and PSOP.



SPECIFICATIONS

Pin Drivers

40 pin drivers. Each pin is software programmable to generate either digital or analog voltages.
 Minimum slew rate: .001V/us; Maximum slew rate: 1000V/us.
 Range: 0 to 25.5V in 100mV increments. Current limited.
 Programming socket: One 40-pin gold ZIF, accepts .3-.6" DIPs.

Device sizes supported

On standard equipment, up to: 40 pins, DIP
 With optional modules, up to: 84 pins, PLCC, TSOP, PSOP, etc.
For complete details, please see Supported Devices List.

Low Voltage Capability:

All Vcc levels are supported, including 6.5v, 5v and as low as 1.8v.

Hardware Expandability:

Supports many device packages with optional add-on modules: PLCC, LCC, TSOP, PSOP, SSOP, SOIC, QFP, TQFP, etc. Expandable to do Gang/Set programming of EPROMs, Flash, and micro controllers with the GM-Series of Gang Modules.

Hardware Upgrade Path:

Upgradable to PILOT-U44-Plus, PILOT-U84-Plus or PILOT-U128-Plus. Please contact Advin Sales for details.

Examples of available operations:

| | | | |
|-----------------------|---------------------------|--------------------|--------------------|
| Device Program | File Directory | Configure Device | Buffer Checksum |
| Device Erase | File Name | Configure Port | Buffer Edit Fuse |
| Device Secure | File Load | Configure Save | Buffer Edit Vector |
| Device ChksumFile | Format | Configure Width | Buffer Edit UES |
| Device Examine | File Save | Configure Set-size | Buffer Fill |
| Device Verify | File Address | Configure Algo | Buffer Load |
| Device Test | Active Range | Configure Security | Buffer Invert |
| Device Blank-Check | | Configure Others | Buffer Init |
| Macro Execute | Release-control Serial # | Enter | Sector Protect #n |
| Macro Error Action | Release-control Serial # | Increment | Sector Protect All |
| Macro Label | Release-control Address | | Sector Un-protect |
| Macro JMP,JBE,JE | Release-control Date/Time | Stamp | |
| Macro Operator Prompt | | | |

Even/odd byte swap for Intel or Motorola Convention of Data-Addressing

Macro/Batch Facility

Similar to DOS batch files. Supports pass/fail counters, conditional jump, comments, message to operator, waiting for operator, etc.

File Formats Supported

PLDs JEDEC, POF
 PROMs,E/EPROMs and other memory based devices
 ASCII, Binary, Intel HEX, Extended Hex, Motorola S1,S2,S3, etc.

Programming through-put, examples (in min:sec)

| | | | |
|--------------|------|--------------|------|
| PAL16L8-5 | 0:02 | TI PAL22V10 | 0:02 |
| GAL16V8 | 0:03 | Atmel 29C010 | 0:16 |
| Xilinx 1765D | 0:04 | AMD MACH110 | 0:05 |

Note: Assuming programmer is controlled by 486 computer. Programming pulse length is independent of computer speed. Programming overhead varies with computer speed.

System Requirements

IBM 386/486/Pentium/Notebook or compatible machines. No PC-slot required. DOS 3.1 or above, 640K RAM. Hard disk with at least 1.5 MB disk space. One parallel printer port (LPT1, 2 or 3).

System Interface

PC connection standard parallel printer port
 Equivalent transfer rate at least 200K baud

Electrical and Physical

Operating voltage 85v to 264V, automatic switch
 Power consumption: 40W. Power connector: Std IEC
 Socket One 40-pin gold ZIF, accepts .3-.6" DIPs
 Connector for Add-on/Plug-in Modules One, 50-pin.
 Dimensions 11"x7"x2.6" high.
 Instrument weight: 4 lb. Shipping Weight: 8 lb.

Supplied Equipment

Programming hardware, control software, user manual, interface cable to PC parallel printer port, detachable power cord. (Power cord included for domestic customers only.)

Optional Equipment

PLCC, SOIC, TSOP, PSOP, SSOP, QFP, TQFP, etc. Gang Modules.

Warranties And Software Updates

1 year hardware warranty. Free lifetime software updates via WEB.