- Compact hardware design complete with interchangeable 48-pin DIP TOP.
- 48 universal analog/digital pindrivers - Expandable to 84 pindrivers.
- Universal device support for memory, microcontroller and logic devices.
- Industry-standard TaskLink for Windows software enhances the quality and efficiency of your device programming operation.
- Partnerships with major semiconductor companies ensure a wide range of device support, especially for new devices.
- Low-voltage programming supports voltages down to 1.8 volts allowing you to program the newest devices on the market.
- Common architecture with the Data $1 / 0^{®}$ Multisyte ${ }^{T m}$ and PS2/300 ${ }^{\text {TM }}$ allows a customer to migrate programming processes into the manufacturing environment.
- The addition of production-quality TOPs provides flexible, highly reliable support for SOICs, TSOPs, PGAs, OFPs, $\mu$ BGAs and other packages.
- Adding FlashTOPs ${ }^{\text {m" }}$ turns this single-site programmer into a four site Flash Memory programmer.
- Comes standard with one year of device support updates.


## Optima <br> Universal Programming System

The Optima ${ }^{\text {TW }}$ family of device programmers combines high-speed analog/digital design techniques with proven algorithms to deliver the highest quality programming results. Interchangeable TOPs and upgradeable pin drivers give you more flexibility for today's as well as tomorrow's programmable devices.

## Flexible, Reliable Support for the Latest Devices and Packages

The Optima provides universal, highly flexible device programming support for today's memory, microcontroller and logic devices from all the major manufacturers, from Altera to Xilinx. It comes standard with the TOP 48 which can support all DIP devices up to 48 pins. With additional TOPs and "DIP-To-Package" adapters, all other package styles can be supported.

With TOPs support, you can always be sure your devices are programmed reliably - no matter what package you use. The innovative TOPs design minimizes lead lengths between the programming pindrivers and the devices being programmed, ensuring clean signals, lead coplanarity, and optimum programming accuracy and repeatability.

## Easy, Efficient Control with TaskLink for Windows

To streamline system setup and control, the Optima programmer features powerful TaskLink ${ }^{\text {m }}$ for Windows ${ }^{\circledR}$ software. TaskLink's intuitive user interface guides you through every programming step, from device selection to data file download and parameter setup. You can also pre-configure programming parameters for specific jobs and save them as Task or Kit files, making repeat programming easier and more efficient. TaskLink can even capture production statistics, helping you analyze and improve the quality and productivity of your programming processes.

## Optima Light

For devices up to 48 pins, the lower cost Optima Light offers all of the same functionality of Optima. It can be upgraded to Optima at any time.

For complete information on any Optima universal programming system, please visit our Web site or contact your local Data I/O sales representative.


## Specifications

## Device Support

- Memory: Flash, PROMS, EPROMS, EEPROMS
- Logic: FPGAs, PLDs, PALs, EPLDs, CPLDs
- Microcontrollers
- Low-voltage support


## Package Support

- 48-Pin DIP socket standard
- PLCC, SOIC, TSOP, PGA, QFP, $\mu \mathrm{BGA}$ and others with optional TOPs or adapters
(Optima Light only supports devices up to 48 pins)


## Standard Features/Accessories

- TaskLink for Windows
- One year of software and device support updates
- 12 month warranty
- Power supply


## Optional Features

- Various TOPs and adapters
- Data I/O or third party "DIP-ToPackage" adapters
- Optima Light upgrade software


## Optima <br> Universal Programming System

1-800-3-DATAIO
www.dataio.com

## System Requirements

- Microsoft Windows 95B, 98, Windows NT, 2000
- 75 MB hard disk space
- CD Rom drive
- Parallel port
- Mouse
- VGA monitor


## Operational Requirements

- Operating voltages: $100-250$ VAC $\pm 10 \%$
- Frequency range: $50-60 \mathrm{~Hz}$
- Power consumption: 25 VA max


## Size

- $8.3 \times 3.5 \times 2.8$ inches $(21 \times 9 \times 7 \mathrm{~cm})$

Weight

- 3.5 lbs . 1.6 kg )

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