3980*xpi*
Programming System

- **The Data I/O 3980*xpi* Programming System provides advanced, universal programming support for thousands of FPGAs, PLDs, CPLDs, memory devices, Flash devices and microcontrollers.**

- **High-Speed Interface. The 3980*xpi* incorporates a high-speed parallel interface to your PC which provides data download speeds up to 600% faster than a standard serial interface. Data files for large memory devices can be transferred in a fraction of the time.**

- **The 3980*xpi* features Data I/O's MatchBook™ device carriers for safe, easy handling of surface-mount devices (SMDs) in a range of device sizes for PLCC or SOIC packages.**

- **To ensure the highest programming accuracy and reliability, 3980*xpi* programming algorithms are approved or certified by the semiconductor companies that manufacture the devices.**

- **Data I/O's TaskLink™ for Windows® software is included with the 3980*xpi* to provide easy and efficient PC-based programmer control. TaskLink speeds up and simplifies setup and operation with a menu-driven interface, extensive on-line help, and "Job" and "Task" functions which let you create job profiles for your frequent programming processes.**

WITH ITS REVOLUTIONARY SOCKETING TECHNOLOGY AND HIGHLY FLEXIBLE DEVICE SUPPORT, THE 3980*xpi* OFFERS PERFORMANCE AND RELIABILITY UNEQUALED IN THE INDUSTRY

Unmatched Voltage and Current Control

The Data I/O® 3980*xpi*™ is a true universal programmer, supporting virtually every device technology on the market today at a range of voltages unmatched in other programmers. The 3980*xpi's* advanced driver design allows programming below one volt with extremely fine current control and absolute waveform integrity.

Accuracy and Reliability

Combining 88 universal pin drivers with a highly flexible, reliable socketing system and manufacturer-approved programming algorithms, the 3980*xpi* easily programs today's popular and cutting-edge parts, including devices from Actel, Altera®, AMD®, Atmel®, Fujitsu, Hitachi, Infineon, Intel®, Lattice Semiconductor®, Microchip Technology, Motorola, National Semiconductor®, Mitsubishi, NEC, Philips, ST Microelectronics, Sharp, Texas Instruments, Xilinx®, and many others. Further, our close partnerships with the semiconductor manufacturers assure that we're ready with programming support for new devices as soon as the devices are available.

Worldwide Service and Support

Because the 3980*xpi* is from Data I/O, you're assured the industry's highest quality and most comprehensive service and support programs. The 3980*xpi* is covered under a full, one-year warranty for parts and labor. For technical support or service, contact one of our worldwide sales offices listed on the Data I/O Web site.

3980*xpi*
Programming System

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

Data i/O

Specifications

General Architecture
- Custom processing system includes a microprocessor, universal pin-driver electronics, and a custom parallel programming processor

Devices Programmed
- PROM, EPROM, EEPROM, Flash
- FPGAs, PLDs, CPLDs, IFLs, FPLAs, microcontrollers, and sequencers

Device Operations
- Quick copy, load, program, verify, sumcheck, ID test, illegal bit check, blank check, erase electrically erasable devices, and continuity check

System Operations
- Transfer, file, configure, edit, job files, yield tally, self test, auto calibrate, Autobaud, and SmartPort

File Storage
- 80 MB mass storage module

Display
- Compatible with most ASCII terminals and IBM® compatible PCs

Input/Output
- Parallel Port
- Serial RS232C (two ports standard)

Serial Baud Rates
- 50-19200 (115.2K baud achieved with HiTerm or TaskLink)

Remote Control
- Compatible with Data I/O computer remote control

Translation Formats
- 49 formats including: Absolute Binary; Altera POF; Formatted Binary; Intel Hex-32, MCS-86 Hex Object, and Intellec 8/MDS; JEDEC logic format; MOS technology; Motorola Exorcisor, Exormax, and S-3; QuickLogic LOF

Standard-Accessories
- 48-pin DIP socket
- System software diskette
- User manual
- Power cord
- TaskLink for Windows software
- MS-DOS terminal emulator (HiTerm)

Options
- MatchBook device support for PLCC and SOIC
- PPI device support for PLCC, LCC, TSOP, QFP, TQFP, SON, µBGA and other packages
- Universal programming base for PGA packages
- Carrying case
- Cable accessory kit (RS232C cable plus gender cable)

Electrical Requirements

Operation Voltages
- 90 VAC to 264 VAC

Frequency Range
- 50 to 60 Hz

Power Consumption
- 150 VA maximum

Physical/Environmental Specifications

Dimensions
- $3.75 \times 11.25 \times 16.25$ inches ($9.53 \times 28.58 \times 41.28$ cm)

Weight
- 11.2 lbs (5.04 kg)
- Shipping weight, including cables, manual and carton: 16.6 lbs. (7.53kg)

Temperature
- Operating: +40°F to +105°F (+4°C to +40°C)
- Transportation: -40°F to +130°F (-4°C to +55°C)
- Storage: +40°F to +122°F (+4°C to +50°C)

Humidity
- Operating: to 80% noncondensing
- Storage: to 90% noncondensing

Operational Altitude
- To 16,500 ft (5,000 meters)

Safety Standards
- The 3980*xpi* meets the current applicable requirements necessary to obtain the following approvals:
  – CE certification
  – UL 1950
  – CSA 22.2