Dataman 448Pro

www.dataman.com

The Dataman 448Pro is a PC based gang programmer featuring four independent universal programming modules and USB 2.0 connectivity. Supporting over 20,000 devices with new support added monthly, the Dataman 448Pro can program without the need for a family-specific modules, giving you the freedom to choose the optimal device for your design.

The 448Pro is built to meet the demands of high volume production programming with minimal operator effort. Concurrent and semi-concurrent programming options combine with device insertion tests and a user friendly interface to give higher programming yields and reduced failure rates.

Hardware

General

- FPGA based totally reconfigurable 48 powerful TTL pindrivers provide H/L/pull_up/pull_down and read capability for each pin of socket. Advanced pindrivers incorporate high-quality high-speed circuitry to deliver signals without overshoot or ground bounce for all supported devices. Pin drivers operate down to 1.8V so you'll be ready to program the full range of today's advanced low-voltage devices.
- Each programming module performs device insertion tests and contact checks before it programs each device. These capabilities, supported by overcurrent protection and signature-byte check help prevent chip damage due to operator error.
- Self test capability allows diagnostic software to thoroughly check the health of the each programming module.
- Built-in protection circuits eliminate damage of the programming module and/or programmed device due to environment or operator failure. All ZIF socket pin inputs of the Dataman 448Pro programmer are protected against ESD up to 15kV.
- Dataman 448Pro programmer performs programming verification at the marginal level of supply voltage, improving yield and guarantees long data retention.
- Various socket converters are available to handle device in PLCC, SOIC, PSOP, SSOP, TSOP, TSSOP, TQFP, QFN (MLF), SDIP, BGA and other packages.

- 4 x 48 pin universal ZIF sockets accepting 300/600 mil DIP devices
- Independent modules allowing both concurrent and semi-concurrent programming
- Intelligent pin drivers allow varying voltages to be applied to any pin delivering signals without overshoot, increasing programming yield
- Pin drivers operate down to 1.8V so you'll be ready to program the full range of tomorrow's advanced low-voltage devices
- Easy to use software supporting Windows 2000/XP/2003/XPx64

Base unit (DAC)

- USB 2.0 port
- On-board intelligence: powerful microprocessor and FPGA based state machine
- Three D/A converters for VCCP, VPP1, and VPP2, controllable rise and fall time
- VCCP range 0..8V/1A
- VPP1, VPP2 range 0..26V/1A
- Autocalibration/self test capability

ZIF socket pindriver

- 4 x 48 pin DIL ZIF (Zero Insertion Force) sockets accepting 300/600 mil devices up to 48 pin
- Pindrivers: 48 universal
- VCCP/VPP1/VPP2 can be connected to each pin
- Perfect ground for each pin
- FPGA based TTL driver provides H, L, CLK, pull-up, pull-down on all pindriver pins
- Analog pindriver output level selectable from 1.8 V up to 26V
- Current limitation, overcurrent shutdown, power failure shutdown
- ESD protection on each pin of socket (IEC1000-4-2: 15kV air, 8kV contact)
- Continuity test: each pin is tested before every programming operation

Software

User Interface

Production Mode Control

- This part of the software is focused on easy monitoring of high-volume production operations.
- Operator-friendly control software combines many powerful functions with ease of use. Graphic user interface provides an overview of all the important activities without burdening the operator with less-important details.
- A project file is used to control the 448Pro multiprogramming system. Project files contain user data, chip programming setup information, chip configuration data, auto programming command sequence, etc. This minimizes potential operator errors because the project file can be created and verified by a qualified engineer before being passed to the operator. The optional protected mode can be set for project file to avoid unwanted changes to the project file.
- Each chip may be programmed with different data such as serial number, configuration and calibration information.

Engineering Mode Control

- This part of the software is used for quick and easy preparation of project files for use in the production mode control software.
- Each programming module is driven by an easy-to-use control program with pull-down menu, hot keys and on-line help. Selection of device is performed by its class and manufacturer or simply by typing a fragment of vendor name and/or part number. It is the same proven software, used by both the 40Pro and 48Pro programmers.
- Standard device-related commands (read, blank check, program, verify, erase) are enhanced by test functions (insertion test, connection check, signature-byte check), and additional special functions (auto increment, production mode – programming starts immediately after insertion of chip into the socket).
- All known data formats are supported with automatic file format detection and conversion during loading. Support for Jam (JEDEC standard JESD-71) and VME files is also included.
- The comprehensive auto-increment function allows each programmed device to be assigned an individual or incrementing serial number. This function also enables the operator to read serial numbers or device identification signatures from a file.
- The software also provides comprehensive information about the supported device, including drawings of all available packages and explanations of prefixes/suffixes.
- Keeping your programmer software up to date can be a costly business with some programmers. Dataman offers completely FREE software updates whenever you need them. The latest software is always available from our website.

The Dataman 448Pro supports over 20,000 of the most popular devices in use today - with future devices being added monthly.

Programmer (ZIF socket)

- BI-PROM
- EPROM
- EEPROM
- EPLD
- CPAL
- GAL
- FLASH
- FPGA
- MACH
- MROM
- NVRAM
- PAL
- PEEL
- PLD
- MICROCONTROLLERS

Contents

- Dataman 448Pro Universal Gang Production Programmer
  Dimensions: 506x213x86 mm (19.9x8.4x3.4 inches)
  Weight: 4.8kg (10.58 lb)
- Switching power adapter 100/240V, max 1.2A, 50-60Hz
- Moulded USB Cable
- Diagnostic POD for self test of the programmer (x1)
- Anti-dust cover for ZIF socket (x4)
- User manual
- Software (2000/XP/2003/XPx64)
- Transport case
- Optional range of adapters and socket converters also available

Warranty and Support

- 30 day money back guarantee* - If you don't like it, send it back.
- Three year guarantee - Three years parts and labour warranty, on the 448Pro universal gang programmer.
- Life-Time Technical Support - 448Pro technical support is available free via our website and telephone helpdesk for life.
- Life-Time Software Updates – 448Pro software updates are available free via our website for life.

*Applies to orders from UK/US offices only

DATAMAN

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