



PS 388

With



An ideal solution for quality, high-density device programming in a smaller footprint.

PS388 Automated Device Programming System

Throughput

- Program and verify speeds of greater than 10 MBytes/sec (80 Mbits/sec) for capable devices
- Call factory for throughput estimates (based on configuration)

Cost

- Lowest programming cost per part in the industry
- Combination of high output and low capital investment and low consumable cost

Quality

- Industry proven platform ensures quality products from day one

Flexibility

- Install additional media options easily and quickly for job speed and flexibility

Capacity

- Offering 4 programming stations providing up to 16 device sockets

Protected Investment

- PS Family modular concept sharing same GUI, FC programmer technology, adapters, algorithms, programming job files, tray, tape, tube and marking options as PS588

Technology

- FlashCORE III is the same high-speed architecture used in the industry leading FlashPAK III™, FLX500, PS588FC™ and ProLINE-RoadRunner™
- Supports the highest density devices, i.e. > 4 GByte

Global support and service

- Data I/O worldwide service provides local support

The PS388 is the ideal system for programming high-density devices in small to medium batch sizes. With the FlashCORE III programming engines installed in the PS388, the system is able to keep up with high throughput demand even for extremely large file sizes, no matter which input/output media is required.

Key Benefits

MODULAR CONCEPT

The PS Series automated programming systems share many of the same components including the GUI, FlashCORE III technology, consumables, algorithms, programming job files, and media options such as tray, tape and tube. With the PS Series modular concept your investment protection is guaranteed for years to come.

SMALLER FOOTPRINT

To answer the market demand for smaller batch size programming, the PS388 automated programmers are designed with all the same advantages of the PS588 machines, but packaged into a smaller workspace.

PRODUCT CHANGEOVERS

The PS388 is developed especially for use in flexible, medium volume, high mix programming environments involving variable lot sizes and quick product changeovers, including faster job changeovers enabled by the fast download speeds of the FlashCORE III programmers.

PRICE PERFORMANCE

The PS388 fully automated programming solution from Data I/O delivers an entirely new benchmark for productivity and value—highly automated and extremely flexible, compact design—creating a whole new price-performance sector

HIGH-MIX PROGRAMMING

To meet high-mix programming challenges, you get the same control, precision and consistency as high volume programming without the complexity.

INCREASED PRODUCTIVITY

The PS388 maximizes productivity by the combination of its highly reliable system platform, lower cost of ownership, proven quality performance, ease of use, and Data I/O's global support organization.

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System Components

- Automated programming system with pick-and-place, marking and media transfer sub-systems
- Pick and placement accuracy: 0.038mm (0.0015")
- X, Y, Z and Theta rotation with high performance servo drive system
- Placement force <10N
- Vision alignment and self-calibration
- Easy-to-use GUI provides simple machine set-up and diagnostics
- Upward looking camera for device alignment strategically positioned to optimize throughput
- Compact footprint preserves floor space

Programming Modules

- FlashCORE III high-speed programmers reduce programming times and supports high density devices, including files greater than 4 GBytes
- Four FlashCORE III programming stations, creating up to 16 programming sites
- FlashCORE III modules enable extremely fast job downloads over Ethernet for quick changeovers
- Data I/O High Insertion Count Adapter for BGA, uBGA and QFP packages. Lowest insertion cost per device in the industry, 250,000 insertions per socket, unparalleled yields of typically 99.8%
- Package adapter changeover times are typically less than one minute per programming station
- All programming stations are independent
- Enhanced serialization with serial number master files to eliminate device duplication
- Serial number pass through to marking option
- "Device in socket" test eliminates programming errors

Device Support

- Flash Memory: NOR, NAND, MCP, MMC, SD, MoviNAND, OneNAND, iNAND and more.
- Microcontrollers.

Package Support

- PLCC, SOIC, SON, WSON, SSOP, CSP (BGA, uBGA and FPGA), QFP, TQFP, TSOP, PoP, and more

Device Testing

- Continuity, checksum, blank check, mis-insertion, test, verify, backwards device, two pass verify

Regulatory Compliance

- CE

I/O Media Options

- Any combination of input/output media
- Fast changeover times, typically less than 5 minutes for tape inputs and seconds for trays
- Tray locations for device rejects
- Media transfer available without programming (i.e., Tape-to-tray, Tray-to-tape, Includes Marking etc.)
- Tape Input: 12-56mm
- Tape Output: 8-56mm
- Cover tape, pressure or heat sealer
- Tube Input and Output
- Tray feeder Input/Output JEDEC (TF20)

Marking Options

- CO2 Laser—Power: 0-10 Watts—Spot size: 0.29 mm

System PC

- Processor: Pentium Dual Core
- Operating system: Windows XP
- Drives: USB2.0 and DVD RW
- Network: RJ45 Ethernet (LAN/WAN)

Pick and Place System Software

- User interface:
 - Windows with touch screen
 - Monitor: 800 x 600 SVGA 12.5" TFT touch screen display
 - Features and Reports
 - Task definition, Set-up, Report files
 - Error tracking

Service Spares

- PS388 Basic Spares Kit
- PS388 Supplemental Spares Kit
- PS-FlashCORE III Spares Kit

Support Options

- Operator training
- Annual Programmer Support (APS)

Electrical/Power Requirements

- Input voltage: 208 –240 VAC, 50/60 Hz, 1 PHZ
- 10 Amps Max.

Compressed Air Usage

- Air pressure: 80psi (5.5 bar)
- Air flow: 3 CFM (85 liters/min.)

Operating Temperature

- 55°F to 86°F (+13°C to +30°C)

Humidity

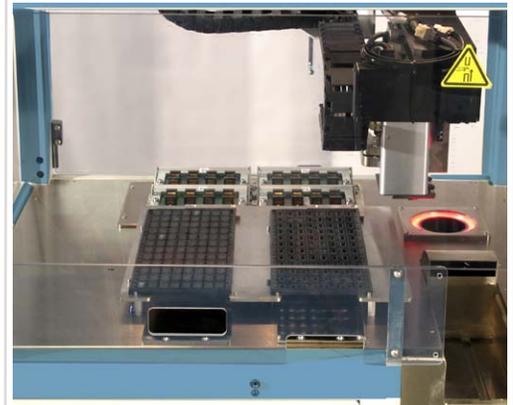
- 35% to 90% RH Non-Condensing

Dimensions (less Option Bay)

- Length: 90 cm (35")
- Width: 80 cm (31")
- Height: 163 cm (64")

Shipping Weight

- 364 kg (800 lbs)



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