# PSV5000

The PSV5000 is the cost effective entry point for high performance automated device programming. The PSV5000 delivers trusted performance, flexibility, & reliability at an affordable price.

## Efficient: *Designed for optimum performance & flexibility in a compact footprint*

### FAST PROGRAMMING WITH EASY CHANGEOVER

- Up to 1300 parts/hour
- Scalable up to 6 FlashCORE III programmers (4 to 24 sockets)
- Scalable up to 5 LumenX programmers (1to 40 sockets)
- Ideal for first time automation

### FLEXIBLE OPTIONS

- Integrated media options
- Fiber laser marking
- Small parts down to 2 mm x 3 mm
- Large parts up to 42.5 mm x 42.5mm

### OPTIMIZED ALGORITHMS & UNIVERSAL DEVICE SUPPORT

- Universal device support on FlashCORE III
- Ultra-fast programming for eMMC and UFS with TurboBoost for LumenX
- 4.5x faster read speeds for UFS devices with VerifyBoost for LumenX programmers

## Reliable: *Engineered for highest quality programming, uptime, & production yield*

### HIGHEST QUALITY PROGRAMMING RESULTS

- HIC adapters for highest programming yield
- Value added software

### INTELLIGENT SYSTEM DESIGN & INTEGRATION

- Proven pick & place head, programming engine & handling software

### INTEGRATED VISION SYSTEM FOR PRECISE PLACEMENT

- +/- 30 micron for repeatable precision placement
- Support for small parts

## Affordable: *Developed to deliver high quality automated programming for the lowest cost per programmed device*

### LOWEST TOTAL COST

- Significantly reduce labor cost
- Save >3x cost per programmed part
- Maximum socket density minimizes floor space and enables quick scaling as production ramps

### INVESTMENT PROTECTION

- Works with existing FlashCORE & LumenX adapters & algorithms
- Growing support for LumenX ensures your investment is protected now and in the fututre

### GLOBAL SERVICE & SUPPORT

- Local service, engineering & support
- Regional spare parts

**EFFICIENT.**

**RELIABLE.**

**AFFORDABLE.**

## DATA I/O CORPORATION

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## DEVICE HANDLING SYSTEM

- **Throughput:** Handler rated up to 1300 devices per hour
- **Placement Accuracy:** ± .02mm
- **Pick-and-Place Method:** Single-probe stepper actuated z-motion with servo-drive theta (rotation axis)
- **Probe Stroke:** 50mm (max)
- **Alignment:** Upward looking camera
- **Regulatory Compliance:** CE Compliant, RoHs, WEE

- **System Software::** TaskLink for Windows, CH700, Windows 10
- **Frame Dimensions:** 1290mm D x 870mm W x 1520mm H (not including media I/O)
- **Shipping Dimensions:** 1310mm D x 930mm W x 1760mm H (not including media I/O
- **Net Weight:** 450kg (992 lbs)
- **Shipping Weight:** 550kg (1212 lbs)

## I/O MEDIA OPTIONS

**Any combination of input/output media I/O**

- **Tape Input:** 8mm - 56mm
- **Tape Output:** 8mm - 44mm (adjustable)
- **Tray Feeder Input/Output:** Supports up to 20 JEDEC Trays
- **Manual Tray:** Available without any special tooling
- **Tube Input/Output**
- **Reject Bin**

## VALUE ADDED SOFTWARE

- **Serial Number Server**
- **Automotive Performance PAK**
- **NAND Flash Bad Block Management**
- **Command Line Interface (LumenX)**
- **ConneX® Service Software**
- **LumenX Software with:**
  TurboBoost standard with v2.0 and higher
  VerifyBoost license available
- **NexTeach Software**

## DEVICE MARKING OPTION

- **Laser Marker:** Fiber laser marking
- **Power:** 0 - 10 Watts
- **Ink Dot Marking** Marks parts as small as 4mm x 4mm

## ADDITIONAL OPTIONS

- **Vision:** 2D tape-out inspection
- **Ionizers:** Integrate up to 2 ionizers
- **Barcode Scanner**

## PROGRAMMING ENGINE, ADAPTERS & DEVICE SUPPORT

**Programmer:**
- **FlashCORE III**
- **LumenX with TurboBoost speed standard and VerifyBoost license**
- **Socketing Technology:**
- **Standard burn-in sockets** (typically 5,000 - 10,000 insertions per socket)
- **High Insertion Count Sockets** (HIC) for BGA, TSOP, QFP (typically 250,000 insertions per socket)
- **Medium Insertion Count Sockets** (MIC) for BGA, QFP, SOP (typically 50,000 insertions per socket)
- **Package Support:**
PLCC, SOIC, SON, WSON, SSOP, CSP, BGA, uBGA and FPGA, QFP, TQFP, TSOP, PoP, DIP and more
- **Reject Bin**

**Universal Device Support:**
- **FlashCORE III** Flash Memory (NOR, NAND, MCP, MMC, e.MMC, SD, MoviNAND, OneNAND, iNAND, Serial Flash, EEPROM, EPROM and more), Microcontrollers and Logic devices (CPLD, FPGA's, PLD's) and more
- **LumenX with TurboBoost and VerifyBoost** eMMC, UFS, SD, SPI NOR, Secure Elements,
  Secure Microcontrollers with support for additional device technologies in process

**Device Programming & Testing:**
Program, continuity, checksum, blank check, mis-insertion, test, verify, backwards device, two pass verify, ID check, Illegal bit-check

## SUPPORT OPTIONS & SERVICE

- **PSV5000 Basic Spares Kit**
- **PSV5000 Supplemental Spares Kit**
- **FlashCORE III Spares Kit**
- **Operator Training**
- **Extended Service Contracts:** The first year of support is included in the system purchase price and can be extended via extended service support renewal. Data I/O offers a suite of options to cover both hardware and system software (consumables are not included).

## REQUIREMENTS

- **Input Voltage:** 208-240 VAC, 50/60 Hz, Single-phase 10 Amps Max
- **Operating Temperature:** 55°F to 86°F (+13°C to + 30°C)
- **Humidity:** 35% to 90% RH Non-Condensing
- **Air Pressure:** 80psi (5.5 bar)
- **Air Flow:** 6 SCFM (max)