



Velocity. Versatility. Value.

The world's premiere automated programming system with the speed, flexibility and fast changeover to handle any job at the lowest total cost of ownership



✓
✓
✓
Velocity.

Versatility.

Value.

Now with
**TurboBoost for Lumen^(R)X
& NexTeach Pro**

Velocity.

Engineered for speed

- ✓ **Optimized Handler**
 - Up to 2000 parts/hour
 - SSD for fast file download
 - Dual pick & place heads
- ✓ **Fast Changeover**
 - **Zero** mechanical changeover with concurrently installed options
 - Fast and simple job teach with **NexTeach Pro**
 - Ergonomic design for easy access to programmers
- ✓ **Optimized Algorithms & Universal Device Support**
 - Universal device support on FlashCORE III
 - Ultra-fast programming for eMMC and UFS with **TurboBoost** for LumenX

Versatility.

Designed for ultimate flexibility and zero changeover

- ✓ **Small Device Handling**
 - 1.5mm x 1.5mm
- ✓ **Highest Socket Density**
 - Up to **24 FlashCORE** programmers for **96 sockets**
 - Up to **14 LumenX** programmers for **112 sockets**
- ✓ **Flexible Options**
 - Concurrently installed media options
 - Fiber laser marking, 3D coplanarity, 2D tape-out inspection & integrated ionizers for highest quality

Value.

Unprecedented capability, quality & investment protection for customers

- ✓ **Lowest Total Cost**
 - **1 PSV7000** does the work of 2 or more competitive systems
 - **Maximum socket density** minimizes floor space and enables quick scaling as production ramps
- ✓ **Investment Protection**
 - Works with existing FlashCORE & LumenX adapters & algorithms
 - LumenX supports the latest Flash technologies ensuring your **investment is protected**
 - LumenX is field upgradeable to support UFS
- ✓ **Global Service & Support**
 - Local service, engineering & support
 - Regional spare parts



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Device Handling System

- **Throughput:** Handler rated up to 2000 devices per hour
- **Placement Accuracy:** $\pm .03\text{mm}$
- **Pick-and-Place Method:** 2 single vacuum nozzles
- **Component Range:** 1.5mm x 1.5mm to 32mm x 32mm
- **Probe Stroke:** 50 mm (max)
- **Alignment:** Alignment-on-the-fly (laser based)
- **System Software:** TaskLink for Windows, Data Management Software (DMS), AH700, Windows 10
- **Regulatory Compliance:** CE Compliant, RoHs, WEEE
- **Frame Dimensions :** 1280mm D x 1250mm W x 1500mm H (not including media I/O)
- **Shipping Dimensions:** 1534mm D x 1504mm W x 1754mm H (not including media I/O)
- **Net Weight:** 350kg (771 lbs)
- **Shipping Weight:** 500kg (1102 lbs)

Positioning System

- **X-Y Drive System:** Servo-driven belt drive
- **X-Y Axis Resolution:** $\pm .001\text{mm}$ using linear encoders
- **Theta-axis Resolution:** $.072^\circ$ servo drive
- **X-Y Encoder Type:** linear/rotary dual encoder
- **Z-drive System:** stepper belt-drive
- **Theta Drive System:** servo motor

I/O Media Options

Any combination of input/output media I/O

- **Tape Input:** 8mm - 56mm
- **Tape Output:** 8 mm - 56mm (adjustable)
- **Dual Tray feeder Input/Output:** Supports up to 20 JEDEC Trays
- **Manual Tray:** Available without any special tooling
- **Tube Input and Output:** Available with special tooling
- **Reject bin**

Device Marking Option

- **Laser Marker:** Solid state pulsed fiber laser marking for alpha numeric / graphic / 2D bar-code laser mark up to 28mm x 28 mm mark area
- **Power:** 0 - 10 Watts

Additional Options

- **Vision:** 3D Coplanarity Vision System
- **Vision:** 2D tape-out inspection
- **Ionizers:** Integrate up to 2 ionizers
- **Barcode Scanner**
- **NexTech Pro:** Z-Laser measurement & 2D Vision Alignment

Support Options & Service Spares

- **PSV7000 Basic Spares Kit**
- **PSV7000 Supplemental Spares Kit**
- **PS- 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 covers both hardware and system software (consumables are not included).

Requirements

Electrical/Power

- **Input Voltage:** Single-phase 220V
- **Input Line Frequency:** 50-60 Hz
- **Power Consumption:** 1.5 KVA

Compressed Air Usage

- **Air pressure:** 80psi (5.5 bar)
- **Air flow:** 6 SCFM (max)

Operating Temperature

- 55°F to 86°F (+13°C to + 30°C)

Humidity

- 35% to 90% RH Non-Condensing

Value Added Software

- **Serial Number Server**
- **Automotive Performance PAK**
- **NAND Flash Bad Block Management**
- **Data Management Software Suite (LumenX only)**
- **Job Composer for LumenX**
- **ConneX® Smart Programming Software**

Programming Engine, Adapters & Device Support

Programmer

- FlashCORE III
- Lumen^{IX} with TurboBoost

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)

Universal Device Support

FlashCORE III: Flash Memory (NOR, NAND, MCP, MMC, eMMC, SD, MoviNAND, OneNAND, iNAND, Serial Flash, EEPROM, EPROM and more), Microcontrollers and Logic devices (CPLD, FPGA's, PLD's) and more

LumenX: eMMC, UFS, SD and SPI NOR with support for additional device technologies in process

Package Support

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

Device Programming & Testing

Program, continuity, checksum, blank check, mis-insertion, test, verify, backwards device, two pass verify, ID check, Illegal bit-check

Americas

Data I/O Corporation
Redmond, Washington, USA
Website: www.dataio.com
Email: sales@dataio.com

Europe

Data I/O GmbH
Gräfelfing, Germany
Website: www.dataio.de
Email: salesgmbh@data-io.de

Asia

Data I/O Electronics (Shanghai) Co. Ltd
Shanghai, China, PRC
Website: www.dataio.cn
Email: ChinaSales@dataio.cn

