



LUMENX

A revolutionary programming platform delivering managed and secure programming with unrivaled performance at an extraordinary value.

Revolutionary Performance

- Ultra-fast programming performance with up to:
 - 750 MB/sec read for UFS with VerifyBoost
 - 160 MB/sec read & write for all other devices with TurboBoost
- 2X faster download speed up to 50 MBytes/second
- Large image file size support up to 256 GB file and extensible up to 512 GB

Architected for managed and secure programming

- Secures programming job from point of creation to point of manufacturing
- Comprehensive Version Control and traceability software for managed programming
- Seamless integration with SentiX Product Creator software simplifying the security job creation process

Revolutionary Value

- Architected to support the latest devices technologies today and in the future
- Easy upgrade to support Universal Flash Storage
- 3x programming capacity with up to 8 sockets/programmer and up to 14 LumenX in the PSV7000 for 112 sockets
- 6 programmers in the PSV5000 for 40 sockets
- Global service and support

DATA I/O CORPORATION

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DEVICE SUPPORT

- eMMC Flash Memory 4.41, 4.50, 4.51, 5.00, 5.10
LumenX supports eMMC standard speed, HS, HS200 and HS400 modes
- SPI NOR
- Universal Flash Storage (UFS) 2.0,2.1, 3.0 and 3.1;
Gear 3 2-Lane (Rate A)
- Secure Elements
- Secure Microcontrollers

PERFORMANCE

- Up to 750 MB/sec read for UFS devices with VerifyBoost license*
- Up to 160 MB/sec read
- Up to 160 MB/sec write
- Up to 50 MB/sec download

**VerifyBoost requires a license. VerifyBoost is only available for UFS devices. Standard verify performance up to 160 MB/sec without a VerifyBoost license.*

FILE SIZE SUPPORT

- 256 GB cache memory standard
- Extensible up to 512 GB

***Cache memory upgrade purchased separately*

ENVIRONMENTAL & REGULATORY SPECIFICATION

- **Operating Temperature Range:** +10° to +30° C
- **Humidity:** ≤90%
- **Regulatory Compliance:** CE, RoHS

VALUE ADDED SOFTWARE/HARDWARE

Automotive Performance PAK Includes:

- Confirm Input Device
- Tape label Generator
- Remote Monitoring
- Version Control

Bar code Scanning

Command Line Interface

Serialization

ConneX Software

ADAPTER + SOCKETING TECHNOLOGY

- Standard burn-in sockets (5,000-10,000 insertions per socket)
- Medium Insertion Count (MIC) for BGA, QFN, QFP, SOP (50,000 insertions per socket)
- High Insertion Count (HIC) for BGA, TSOP, QFP (250,000 insertions per socket)
- Upgrade kit with UFS single socket interface board for UFS programming

- **Network Interface:** 1 Gigabit (1000 BASE-T)
- **Programming Yield:** 99.5%
- **Changeover:** Tool-less
- **Device Capacity:** 8 single socket adapter boards per LumenX programmer

SUPPORT CONTRACTS

The first year of support for factory parts and labor warranty included in purchase price and can be extended via annual service contract. The service contract program enables access to new and optimized algorithms, system software and LumenX Software updates and hardware support.

SYSTEM INTEGRATION

- **Automated Programming Systems:** PSV7000 with AH700
PSV5000 with CH700
- **Maximum Socket Capacity:** 14 LumenX programmers for up to 112 sockets in PSV7000
5 LumenX programmers for up to 40 sockets in PSV5000

LUMENX SOFTWARE (FOR STANDARD PC INTERFACE)

- Role based user authentication to control access to create, modify, and run programming jobs
- Version Control
- Read from Master
- Basic Serialization
- VerifyBoost License
- TurboBoost speed standard with LumenX 2.0