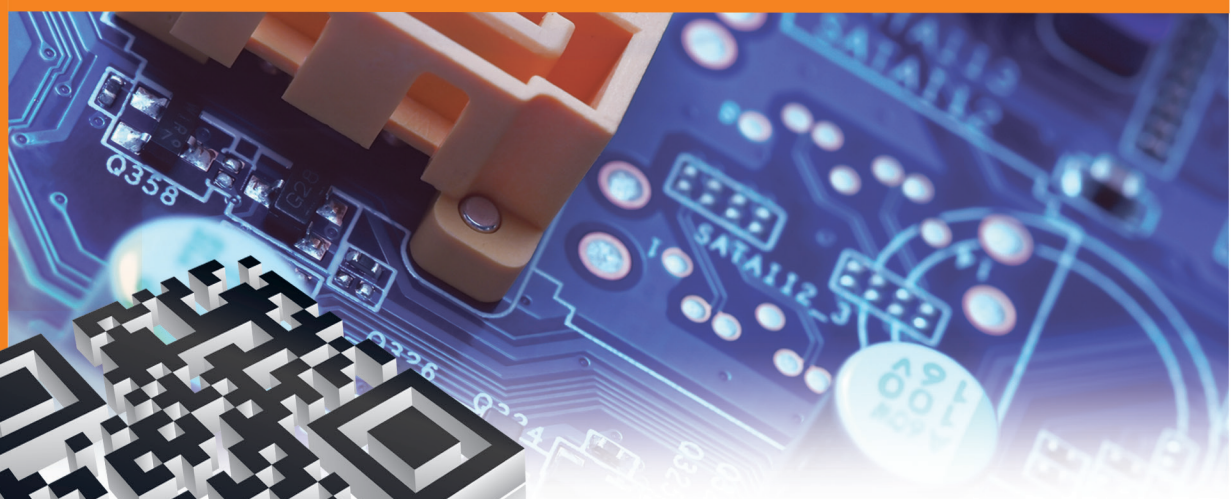
Software & Controllers

Built for High-Speed Laser Marking Environments



LANMARK CONTROLS
Smart Direction

System Overview

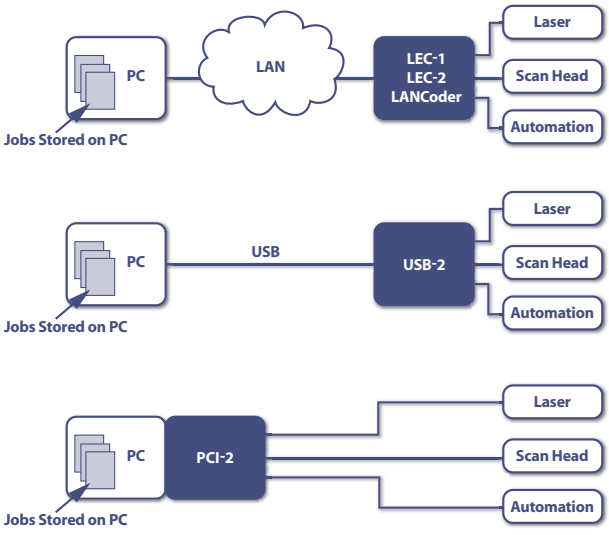
Lanmark Controls introduces new products developed specifically to meet the challenges of high-speed laser marking environments. Based on feedback from OEMs and integrators, the control boards and WinLase® 6 laser marking software have been redesigned from the ground up.

The new board line is comprised of the LEC-2, the USB-2, the PCI-2 and the LANCoder™. All of the boards utilize a new 20 bit-architecture and the proprietary high-performance Accu-Gen20™ marking engine, delivering improved field marking accuracy and on-board real-time processing of vector and laser control. The LEC-2 is the highest performance FPGA-based scan controller board on the market. The LEC-2 comes with 600 MHz of processing power, 512 megabytes of storage (up to 4 GB optional), Ethernet connectivity and full stand alone capabilities, eliminating the need for a PC on the factory floor.

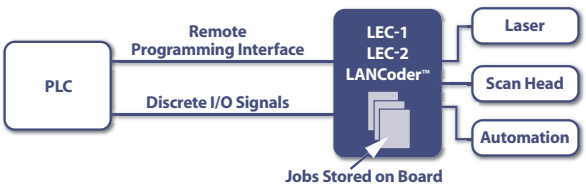
Completely rewritten, WinLase 6 is based on Microsoft's® .NET framework and delivers ease of use with powerful functions. Create a User Interface in any language, easily edit graphics, including nodes and vectors, in the new graphics engine. WinLase 6 works seamlessly with all of Lanmark's new controllers and is backwards compatible with the LEC-1.

Lanmark's new line offers flexibility in laser marking system connectivity, providing powerful laser marking control over Ethernet, USB or PCIexpress. From a completely rebuilt UI to modern chip architecture, WinLase 6 and the new line of boards meet tomorrow's high-speed laser marking challenges today.

Streaming Mode



Stand-Alone Mode

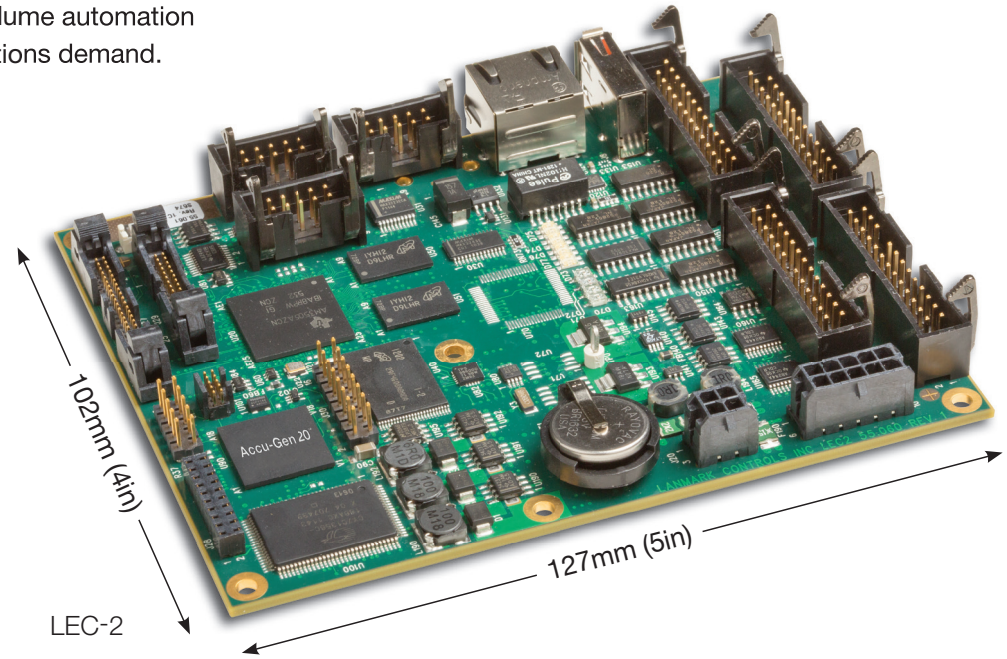


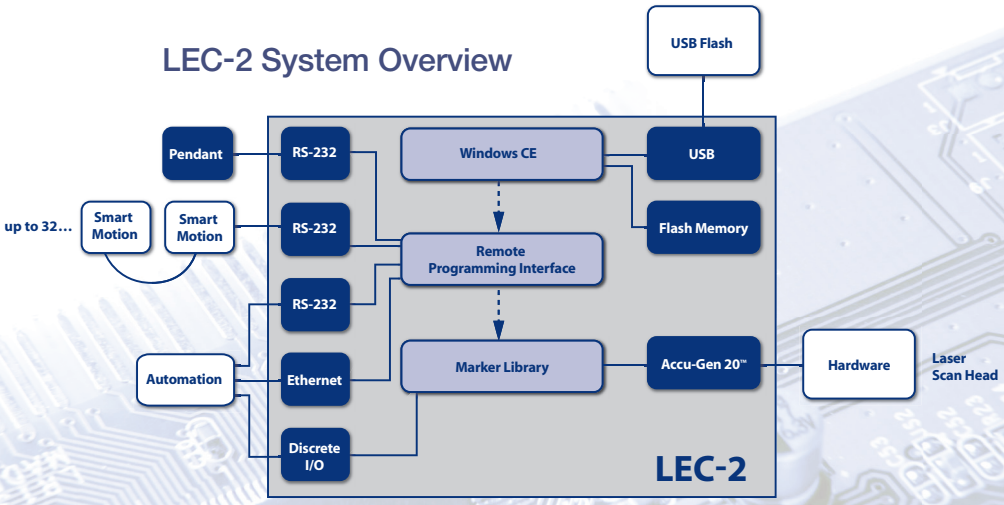
Leading through Innovation

LEC-2 Embedded Laser Marking Controller

Smart design for smart manufacturing environments

Designed for high-speed manufacturing environments that require flexible laser marking capabilities, the LEC-2 eliminates the need for a PC on the factory floor. Execute jobs remotely over the network or store jobs on the LEC-2, which comes with 600 MHz of processing power and 512 megabytes of storage (up to 4 GB optional). The LEC-2 is the only product of its type to deliver the stand-alone capabilities today's high-volume automation applications demand.



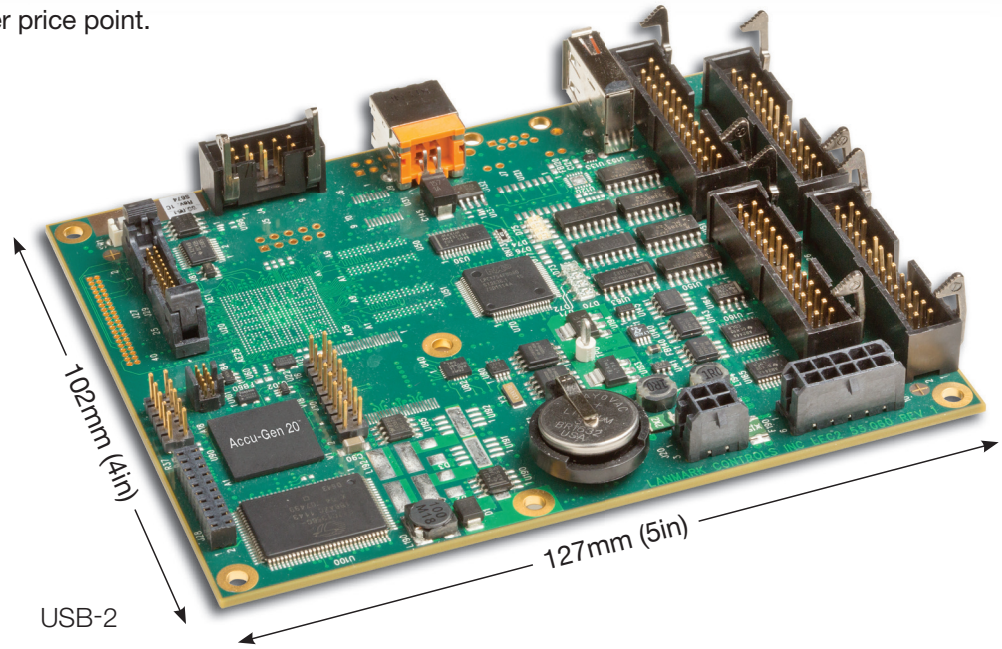


Speed Accuracy Automation

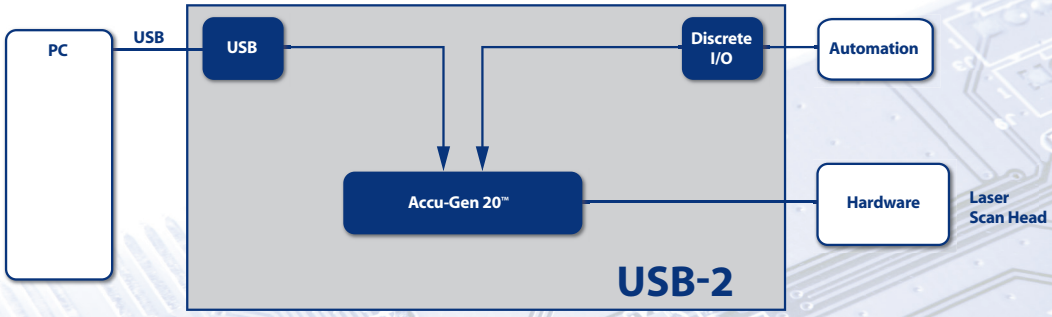
USB-2 Embedded Laser Marking Controller

High performance, lower cost

Ideal for low volume production applications, the USB-2 lets you plug into a PC and go. The USB-2 has the same high performance Accu-Gen 20™ marking engine and seamless integration with WinLase 6 as the LEC-2 – at a lower price point.



USB-2 System Overview

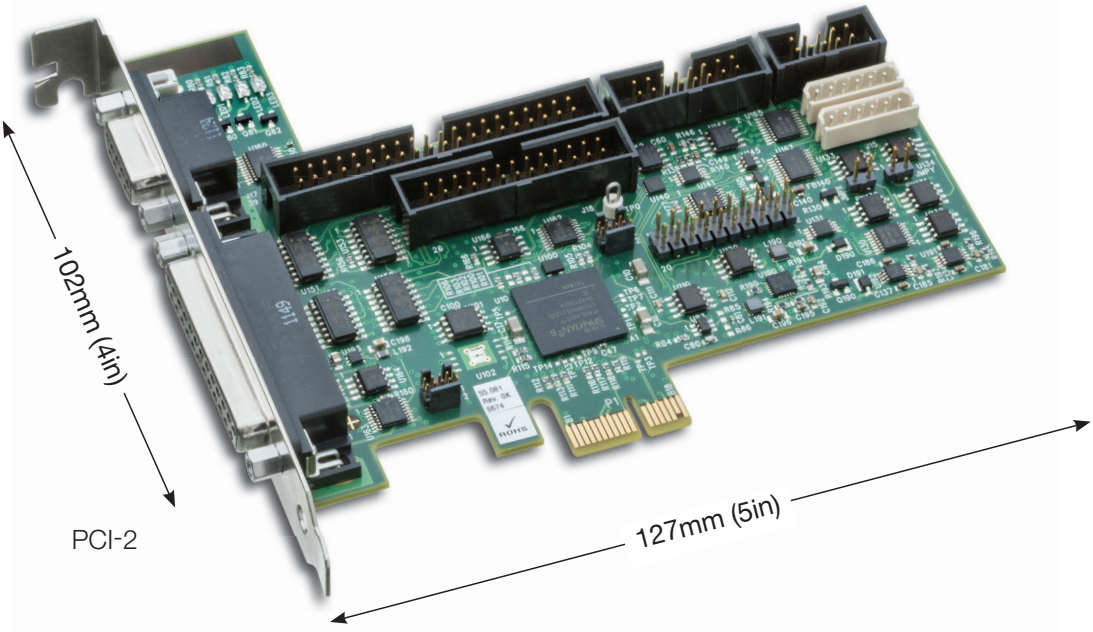


Accuracy and Precision

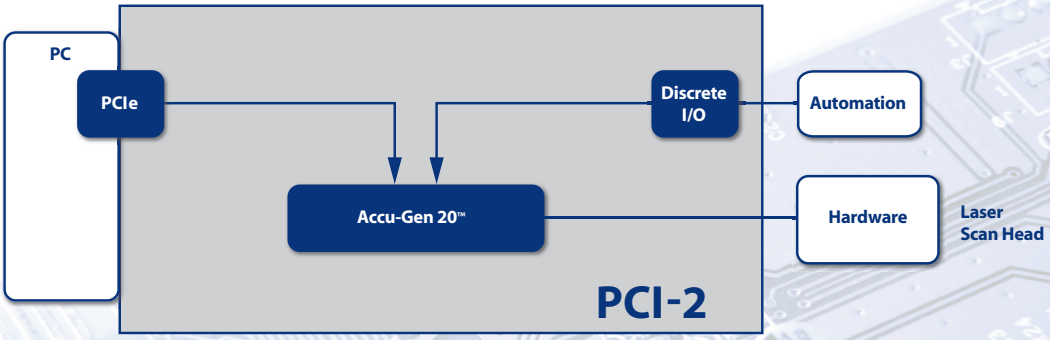
PCI-2 Laser Marking Controller

High performance, lowest cost

Designed for high volume applications requiring a PC, the PCI-2 plugs directly into the PC using the smaller footprint, high speed PCIe bus and uses the Accu-Gen 20™ marking engine to deliver accurate and precise laser marks. The PCI-2 is XY/2 – 100 compatible and has analog scan head control.



PCI-2 System Overview

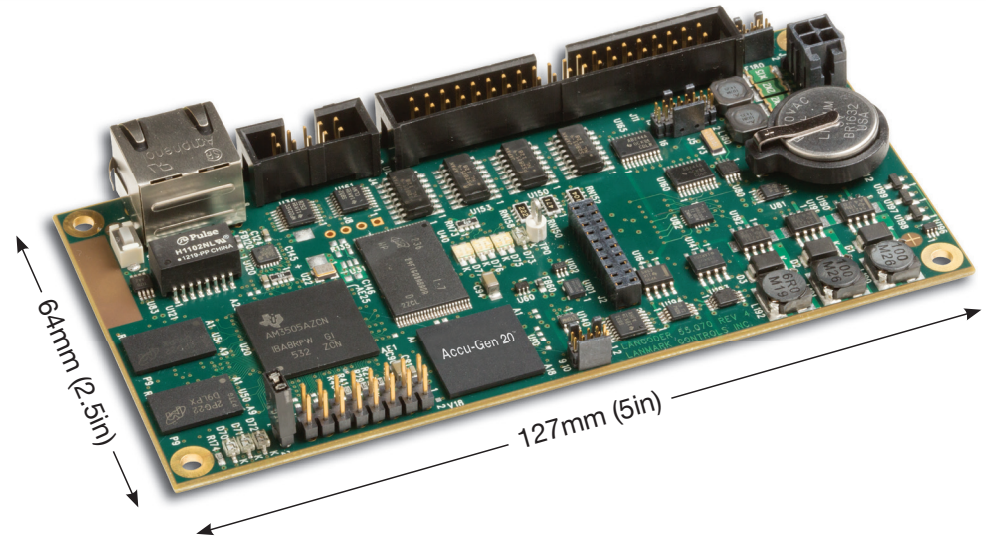


Suit any Need or Budget

LANCoder™ Embedded Laser Marking Controller

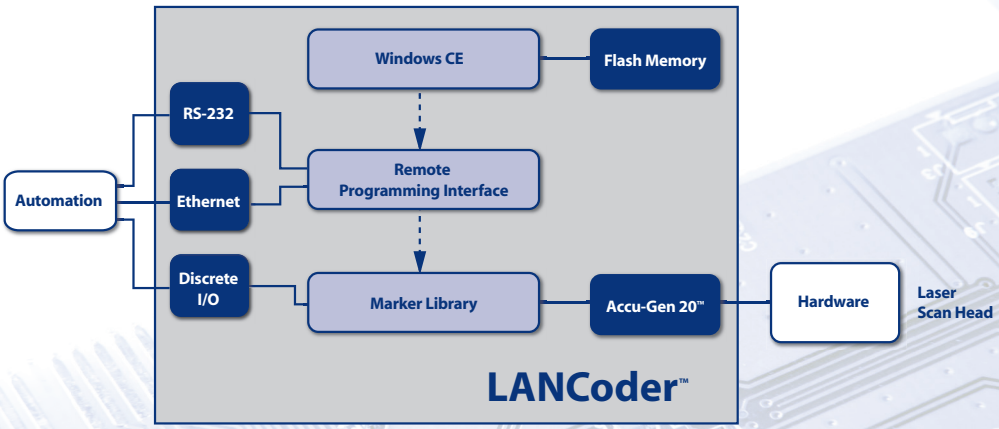
Smaller board, same high performance

Ideal for companies that need a basic laser marking solution, the LANCoder features the LEC-2's stand alone capabilities with a customizable remote API. Designed for the coding market the LANCoder has RS-422 digital quadrature inputs for mark on the fly encoder.



LANCoder™

LANCoder™ System Overview



LEC Control Board Comparison Chart

Feature	LEC-1	LEC-2	USB-2	PCI-2	LANCoder™
16-bit Digital Scan Head Control	XY/2-100	XY/2-100	XY/2-100	XY/2-100	XY/2-100
20-bit Digital Scan Head Control	N	Y	Y	Y	Y
XY Analog Servo Outputs	Optional	w/daughter board	N	Y	w/daughter board
Mark Engine Resolution	16-bit architecture	Accu-Gen 20™ 20-bit architecture	Accu-Gen 20™ 20-bit architecture	Accu-Gen 20™ 20-bit architecture	Accu-Gen 20™ 20-bit architecture
Processor Speed	200 MHz	600 MHz	Not Applicable	Not Applicable	600 MHz
RAM	32MB	256 MB	Not Applicable	Not Applicable	256 MB
FLASH for local job storage	32 MB	512 MB	Not Applicable	Not Applicable	128 MB
Connectivity	Ethernet	Ethernet	USB	PCIexpress	Ethernet
USB Expansion (Job Storage)	Y	Y	N	N	N
COM Ports	3	3	0	0	1
Streaming Mode	Y	Y	Y	Y	Y
Stand Alone Mode	Optional*	Optional*	N	N	Y
Remote API	Optional*	Optional*	N	N	N
Browser Interface	N	Y	N	N	Y
Software selectable laser parameters	Y	Y	Y	Y	Y
Max Laser Frequency	2 MHz	20 MHz	20 MHz	20 MHz	20 MHz
Optically isolated User Outputs	4	4	4	4	2
Optically isolated User Inputs	4	4	4	4	4
Additional 16 Outputs and 16 Inputs	w/daughter board	w/daughter board	N	N	N
4 Optically isolated hardware interrupt Interlock inputs	Y	Y	Y	N	N
RS-422 Digital quadrature inputs for Mark on the Fly encoder*	Y	Y	Y	Y	Y
On-board Watchdog, signals Error port	N	Y	N	N	Y

*Requires Proper License

Enables Custom Workflows

WinLase® Software – WinLase 6.0

Completely redesigned and based on Microsoft .NET

To meet the needs of smart manufacturers, Lanmark completely redesigned its' WinLase laser marking software. Built on Microsoft's .NET framework, WinLase 6 enables customization of the user interface. The translation program allows local language support. Currently WinLase 6 displays in English, German, Chinese, Korean, Japanese, Italian, Spanish, and French.

The software features full 3-D marking – enabling you to edit nodes and vectors and change properties without using an external graphics software package. Keep multiple instances of the software open for side-by-side editing of jobs. WinLase 6 seamlessly integrates with all of Lanmark's control boards.

WinLase 6.0 Key Benefits

- Based on .NET framework for ease of use
- Brand new graphics engine allows quick editing of jobs, eliminates need for external graphics package
- Scalable code (Windows CE) runs LEC and WinLase, reducing errors
- Flexible architecture
- Highest marking quality
- Low level DLL
- Simplified user interface
- .NET user controls for customized user interface

Provides Seamless Integration

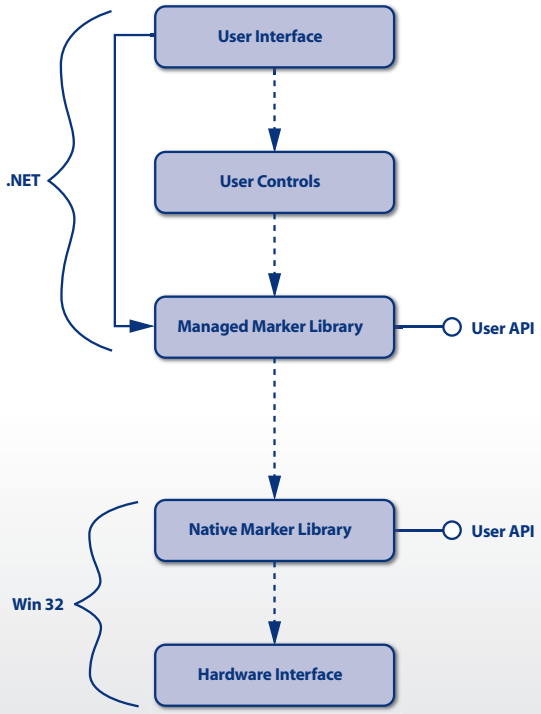
WinLase 6.0 Standard Features

- CAD-based software based on .NET framework
- Seamless integration with all of Lanmark's controller cards
- Custom UI in any language supported by .NET
- Easy configuration of laser parameters for specific lasers
- No limit on the number of software instances open at any given time
- Automation objects enable powerful integration into automation system environments
- Group objects and set properties as a common group
- "Fill" algorithms allow dots, circles, spirals and islands
- Supports TrueType, OpenType and Laser fonts
- Edit graphics, including nodes and vectors
- Supports graphic file import of DXF (versions 13, 14, 2000, 2004, 2007), DWG (versions 13, 14, 2000), PLT, EMF, WMF, EX2, MCL, BMP, JPG, GIF, PCX
- Supports linear barcode types: Code 39, CodaBar, Code 93, Code 128, Interleaved 2 of 5, POSTNET, UPC A, UPC E, EAN 8, EAN 13, BookLan
- Supports 2D barcode types: DataMatrix, Denso QR Code, PDF417
- Extensive array of Automation objects: Wait for Input, Set Output, Time Delay, Message Box, XY Motion, Rotary Motion, Linear Motion, Serial Communication, Run Application, Alignment Tool, Laser Control
- Interfaces with intelligent motion controllers for multiple axis control
- Host Interface control via RS-232 or TCP/IP
- Remote diagnostic capabilities for worldwide support
- Requires Windows Vista®, Windows® 7, and Windows® 8 Pro

WinLase 6.0 Specifications

- Requires Windows Vista, Windows 7, and Windows 8 Pro
- Requires network interface card supporting TCP/IP and 10/100 BaseT or higher
- Recommended screen resolution 1024x768 or higher
- License key required for full operation

WinLase 6 System Overview



Effective & Practical Solutions

About Lanmark Controls

Lanmark Controls, Inc. works closely with laser marking systems' integrators and product managers to develop effective, practical solutions for today's complex and demanding laser marking production challenges. The result is a suite of integrated laser marking solutions that:

- Lower PC costs
- Free up production space
- Simplify laser management
- Facilitate smart manufacturing

Laser marking systems integrators, automation engineers, and production managers worldwide depend on Lanmark Controls for laser marking solutions that are easy to implement, powerful, networkable, reliable and cost effective.

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LANMARK CONTROLS
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