

LP-7008X™ Family



Ultra-fast, High-Quality Automated Laser Plotter

With extraordinary speed and precision, the LP-7008X enables you to achieve high throughput and top quality plotting.



ULTRA-FAST HIGH QUALITY AUTOMATED LASER PLOTTER

The LP-7008X™ family of systems is designed to meet your need for speed and flexibility to handle even your most complex designs.



LP-7008X brings you:

Ultra-fast throughput

- 48-beam laser technology
- Asynchronous plotting operation
- Software-based Raster Image Processor

Unattended operation

- Full, advanced automation
- Continuous plotting of up to 300 films
- Three sizes of film available simultaneously

Sophisticated plotting for leading edge designs

- Multiple resolutions, including 1/16th mil and 1.25 μm
- Handling of fine lines down to 0.75 mil and 15 μm
- Superior geometric and feature accuracy
- Efficient handling of complex data design

Integrated advanced plot queue management

- Full integration with Frontline's CAM station
- Management and control of all CAM data sent for plotting

Ultra-fast Throughput

Utilizing a high-performance 48-beam laser and innovative asynchronous plotting, the LP-7008X is able to plot even your most complex jobs efficiently and accurately. Its software-based Raster Image Processor ensures maximum vector-to-raster conversion speed and adaptability. The system can thereby achieve unparalleled plotting speeds of up to 10" per minute at 1/4 mil resolution or 157 mm per minute at 5 µm resolution.

With three different resolutions readily available, you can select the most appropriate resolution for each job, thus minimizing plotting time and increasing system utilization.

Unattended Operation

The LP-7008X offers you an unprecedented degree of automation. The system has three easy-to-handle drawers capable of storing as many as 300 films of three different sizes. This unique "load and forget" design reduces labor costs and minimizes the risk of handling and dust related defects. Upon completion of the plotting sequence, you can output films automatically either to the developer or to an easily accessible, light-tight output box.

Sophisticated Plotting For Leading Edge Designs

With resolutions as fine as 1/16 mil (16,000 dpi) and 1.25 µm (20,320 dpi), the LP-7008X plots sharp, smooth lines down to 0.75 mil (on the LP-7008Xe) and 15 µm (on the LP-7008Xm). The LP-7008X is able to meet your tightest tolerances with high geometric and feature accuracy and consistent layer-to-layer registration.

The LP-7008X RIP deals with polygon and contour data to reduce the amount of data sent from the CAM workstation. Step & Repeat optimization enables plotting in a "stepper" like mode, turning heavy, complex jobs with multiple repetition (typical of BGA / CSP jobs) into a fast, easy-to-plot jobs.

Advanced Plot Queue Management

Each plotter is equipped with "Image Manager Lite", a software package that enables direct connection to Frontline's CAM station for management and control of all CAM jobs sent for plotting. Image Manager Lite facilitates queue monitoring and manipulation. This enables you to: monitor plotter status, content of drawers, configuration, and production parameters, as well as resume, suspend or change jobs priorities and the number of copies.

A Model To Meet Your Needs

The LP-7008X Family includes the following models:

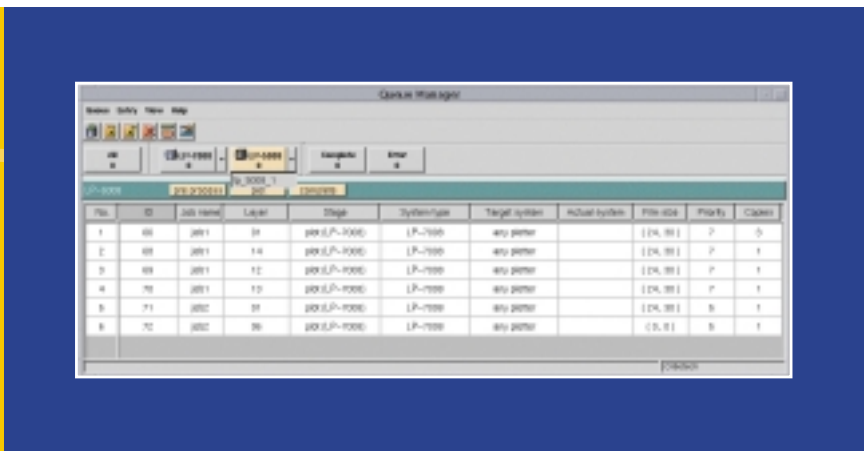
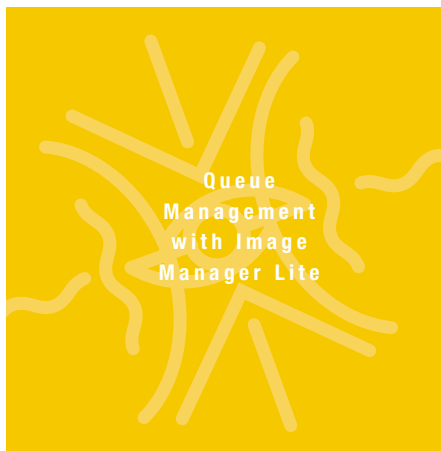
LP-7008Xe™/Xm™ – If you deal in high volume production, and require a fast inch unit plotter, the LP-7008Xe is the natural choice. The LP-7008Xe offers high quality laser plotting, a high degree of automation, a wide range of resolutions and a 1/16 mil resolution upgrade option.

The LP-7008Xm gives you the same automation capabilities as the LP-7008Xe with the ability to plot in millimetric units for high-density, fine feature jobs. Equipped with a millimetric head, the LP-7008Xm is fully compatible with CAM data processed in millimetric units, eliminating the need for data conversion. The LP-7008Xm offers a wide range of resolutions and can be upgraded to 1.25 µm or 1 µm resolution.

LP-7008Xd™/Xdm™ – LP-7008Xd/Xdm models offer you high-quality, cost-effective laser plotting. They have the same automation, resolution and plotting capabilities as the LP-7008Xe/Xm models, but with lower throughput so we can offer it to you at a value price.

LP-7008Xdm, like the LP-7008Xm, is equipped with a millimetric head, is fully compatible with CAM data processed in millimetric units, offers a wide range of resolutions and can be upgraded to 1.25 µm or 1 µm resolution.

LP-7008Xa™ – An inch unit plotter, the LP-7008Xa is designed to give you the same high quality plotting you have come to expect from Orbotech, with a smaller range of resolutions and lower throughput at a value price. Should capacity demands increase, you can upgrade from LP-7008Xa to LP-7008Xe.



LP-7008X™ Family

S p e c i f i c a t i o n s

Model	LP-7008Xa (Inch Units)	LP-7008Xd (Inch Units)	LP-7008Xdm (Millimetric Units)	LP-7008Xe (Inch Units)	LP-7008Xm (Millimetric Units)
Plotting resolution	0.25 mil 0.125 mil	0.25 mil 0.125 mil 0.0625 mil	5 µm 2.5 µm 1.25 µm	0.25 mil 0.125 mil 0.0625 mil	5 µm 2.5 µm 1.25 µm
Maximum plot speed	6 3 (inches/min)	8 4 1.25 (inches/min)	125 62 20 (mm/min)	10 5 1.25 (inches/min)	157 78 20 (mm/min)
Film Types	Red laser film (Kodak, Agfa, DuPont, Fujifilm)				
Input Formats	ODB++, Gerber, Emma80, Mutoh/Pentax, IPC-350, RS274X, NEC, Excellon IMG, DPF, DXF, HPGL, OPF, OPFX				
Geometrical Accuracy Radial @ 3σ, full format, FTF	0.7 mil	0.7 mil	17.5 µm	0.7 mil	17.5 µm
Repeatability	+/-0.2 mil	+/-0.2 mil	+/-5 µm	+/-0.2 mil	+/-5 µm
Line Width Accuracy	+/-0.2 mil +/-0.1 mil	+/-0.2 mil +/-0.1 mil +/-0.08 mil	+/-4 µm +/-2 µm +/-1.6 µm	+/-0.2 mil +/-0.1 mil +/-0.08 mil	+/-4 µm +/-2 µm +/-1.6 µm
Film Options					
Film sizes held by drawers:	11" x 14" to 26" x 32"	11" x 14" to 26" x 32"	280 mm x 355 mm to 660 mm x 812 mm	11" x 14" to 26" x 32"	280 mm x 355 mm to 660 mm x 812 mm
Max. No. sheets, 7 mil film:	100	300 (100 per drawer)	300 (100 per drawer)	300 (100 per drawer)	300 (100 per drawer)
Unload modes:	Via feeder to all types of film processors				
Communication	Ethernet-based				
Optional Features	1/8 mil resolution U/G to LP-7008Xe	1/16 mil resolution Additional film drawers (up to 3) Unload to a light-tight box	1.25 µm resolution 1 µm resolution Additional film drawers (up to 3) Unload to a light-tight box	1/16 mil resolution Additional film drawers (up to 3) Unload to a light-tight box	1.25 µm resolution 1 µm resolution Additional film drawers (up to 3)
Physical Dimensions (without Unloader)	67.0"W x 48.8"D x 59.0"H, 1800 lbs (170.0 cm x 124.0 cm x 150.0 cm, 800 kg)				

- The LP-7008 system is a class 1 laser product. Laser Specification: Red laser diode, 675 nm, 20 mWatt max power. Red laser diode, 660-664 nm, 30 mWatt max power
- Specifications are subject to change without notice

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