

LP™-9 Family of Laser Plotters



LP™-9 Family

Orbotech's LP™-9 suite of field-proven, automated laser plotters deliver the highest performance in laser plotting. The LP™-9 family includes four state-of-the-art systems, providing manufacturers with the very latest in laser plotting technology to meet all production requirements.

Groundbreaking, Ultra High-Speed and High Resolution Automated Laser Plotters

With its high-performance 120-beam laser and high-speed electronics - the LP-9 can plot even the highest density, fine-feature job efficiently and accurately. Its software raster image processor (RIP), running on a powerful workstation, ensures maximum vector-to-raster conversion speed, achieving unparalleled plotting speeds of up to 381mm per minute at 5µm resolution, and up to 23.7" per minute at 4000dpi plot resolution. Furthermore, LP-9 allows you to plot using the highest resolutions at ultra-high speeds of up to 58mm per minute at 1µm resolution and 5.7" per minute at 16,000dpi resolution.



Benefits

Ultra-fast throughput

- 120-beam laser technology
- Software raster image processor (RIP)
- Efficient handling of complex design data

Sophisticated plotting for leading-edge designs

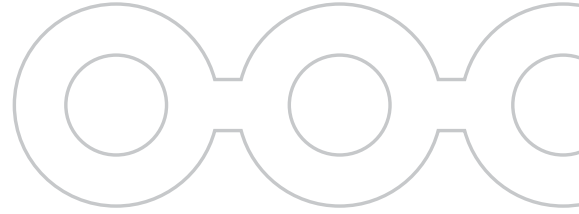
- Multiple resolutions up to 0.5µm
- Millimeter and inch resolution available on the same system
- Supports 25 different film sizes up to 28"x32"
- Fine lines down to 8µm
- Superior geometric and feature accuracy

Unattended operation

- Full, advanced automation
- Continuous plotting of up to 450 films
- Three film sizes available simultaneously

Seamless integration with CAM and plotters

- Integrated advanced plot queue management with Image Manager™
- Full integration with Frontline's CAM stations
- Full integration with LP-7008 and LP-9008 plotters



10µm lines in different angles



8µm lines in cross-hatch



8µm lines in circular patterns



1mil negative cross-hatch

Unattended Operation

LP-9 offers a high degree of automation. The system has three easy-to-handle drawers capable of storing as many as 450 films. Each drawer can store a different film size. LP-9 supports over 25 different film sizes without the need for any intervention. The “load-and-forget” design reduces labor costs, while minimizing the risk of handling and dust-related defects. Upon completion of the plotting sequence, the films are automatically unloaded, either to the developer, or to an easily accessible unload box. LP-9 is capable of interfacing with almost every type of industry film developer.

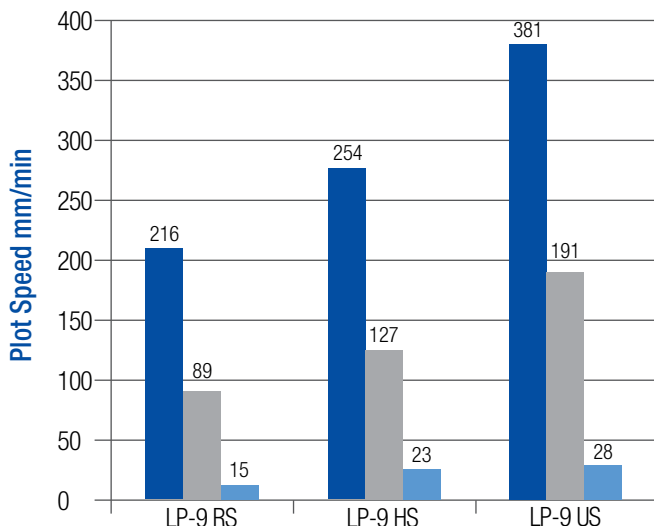
Sophisticated Plotting for Leading-Edge Designs

With resolutions as fine as 0.5µm (50,800dpi), LP-9 plots sharp, smooth lines down to 8µm, meeting your tightest tolerances with unmatched line width accuracy. LP-9’s excellent geometric accuracy enables consistent layer-to-layer registration. Its RIP processes contour data, reduces the amount of data sent from the CAM workstation. Step & Repeat optimization enables fast and easy plotting of heavy, complex jobs with multiple repetitions (typical of BGA / CSP / FC jobs).

Advanced Plot Queue Management with Image Manager™

The LP-9 Image Manager Lite plot queue management application, provides direct connection to Frontline’s CAM stations for management and control of all CAM jobs sent for plotting. Image Manager Lite facilitates queue monitoring and manipulation of plot queue entries. Designed for a multiple LP-9, LP-9008 and LP-7008 plotter environment, the Image Manager software package enables direct connections between Frontline CAM stations and each plotter. Image Manager optimizes the use of multiple plotters installed on the same network via a unique load balancing function.

LP-9 Models - Plot Speed inch/min. per resolution



Throughput - Plots per 8 hour shift per resolution for 18" x 24" film

