

Sprint™ - 8 Inkjet Legend Printer



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Orbotech's Sprint-8 inkjet legend printer delivers the highest performance for PCB legend printing. Offering manufacturers the latest innovations in inkjet technology, Sprint-8 meets all your production requirements at the lowest cost per print.

The Sprint-8 inkjet legend printer tackles even the most challenging legend jobs efficiently and accurately. Powerful print heads and electronics offering high-performance together with the most advanced ink management technology ensure unparalleled print speeds and outstanding results.

Benefits

Ultra-Fast Throughput

- The latest in print-head technology
- High speed Raster Image Processor (RIP) Software
- On-the-fly registration and scaling
- Quick setup per job

UCI (UV Curing Integrated) Technology™

- Significantly reduces cycle time by eliminating two baking cycles
- Increases yield by reducing handling
- Enables to print side A-A or A-B
- Superior control of drop size and position accuracy
- Most economical solution with zero ink wastage
- Lowest ink cost per print

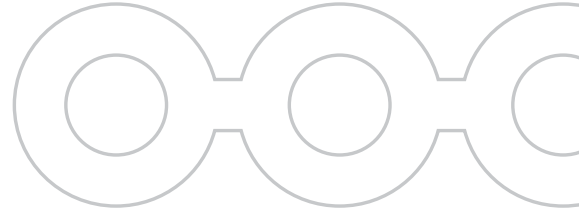
Exceptional Quality & Advanced Capabilities

- Superior image placement and registration
- Prints down to 0.5mm text and 3mil lines
- Exceptional Depth-Of-Focus of 1.5mm for challenging surfaces
- Multiple bar-coding and serialization options
- Supports large and thick panels up to 24"x30" and 10mm in thickness

Easy to Learn & Operate

- Intuitive user interface using a touch screen
- All printing parameters are easily accessible to the operator
- Automated data transfer with any CAM system





Ultra-Fast Throughput

With its high-performance print heads and electronics, Sprint-8 can image even the most challenging legend jobs efficiently and accurately. Sprint-8 offers three different resolutions (fast, standard, high) to suit any type of job while optimizing the overall throughput.

The system's Raster Image Processor (RIP) software runs on a powerful workstation, ensuring maximum vector-to-raster conversion speed, while achieving unparalleled print speeds. Coupled with the most advanced print head and ink management technology, Sprint-8 delivers up to 67 prints per hour at fast resolution. The system's unique ink management allows for a quick up/down process that takes minutes without any ink wastage. In addition, if printing is halted, it will recommence from the same place. All of these unique features contribute to the overall high throughput.

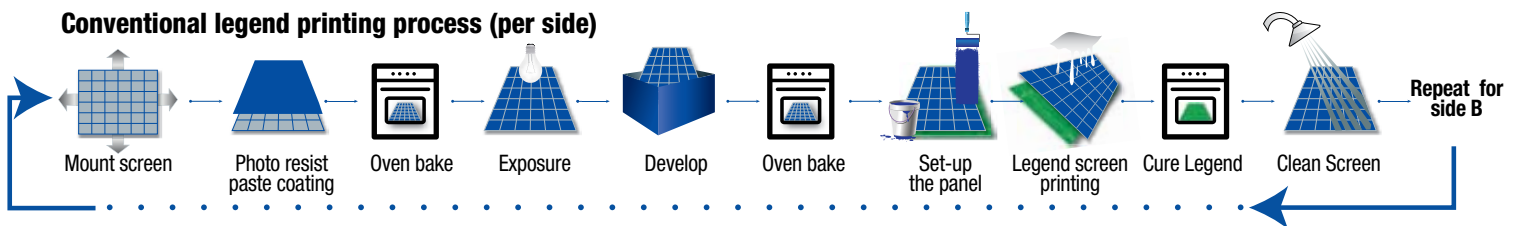
UCI (UV Curing Integrated) Technology™

Orbotech's unique UCI Technology delivers the lowest cost per print. An innovative UV light source cures the ink immediately as it hits the substrate, resulting in a cured legend after imaging each of the panel's sides.

UCI Technology advantages:

- Significantly reduces cycle time by eliminating two baking cycles as well as the required handling time.
- Increases yields by reducing the overall handling. UCI Technology's printed legend is cured unlike other solutions where the legend is soft.
- Enables full flexibility: print side A of the lot, then side B, or side A then B, panel by panel.

Conventional legend printing process (per side)



Sprint-8 Inkjet Legend Printing (per panel)



Enabling Technology & High Quality

Sprint-8 delivers accurate registration and scaling of the legend data to the panel, resulting in higher yield and far superior results than current conventional processes deliver. In addition, Sprint-8 allows printing multiple serialization and bar-coding options for traceability.

To successfully print the most challenging legend jobs, Sprint-8 can print fine features down to 3mil lines and 0.5mm text. The system is extremely versatile and handles large panels (up to 30") as well as extremely thick ones (up to 10mm). Its advanced clamping system ensures high quality results even if the panels are warped. With up to 1.5mm Depth Of Focus (DOF), Sprint-8 prints legend on the most challenging surfaces. It uses the highest quality UV ink to ensure the best adhesion, and complies with multiple MIL standards. By deploying unique ink management technology, every drop of ink is used resulting in the lowest cost per print.

Ease-of-Operation

Operating the Sprint-8 is simple and requires minimal training. Using the touch screen and an intuitive user interface, the operator controls the system's operation and has access to any of the printing parameters. Data transfer from the CAM is fully automated allowing the operator to focus on the system's operation. Unlike other conventional process, Sprint-8 does not require any processes expertise.

Specifications:

Min. Panel ¹	14.8" x 11.8"	375 x 300mm	
Max. Panel & Image ¹	24" x 30"	610 x 762mm	
Min./Max. Panel Thickness ^{1,2}	24 - 335mil	0.6 - 8.5mm	
Total Number of Nozzles	1024		
Resolutions (Both Axes)	Up to 1440dpi		
Printing Modes	Fast (1440 x 360)	Standard (1440 x 720)	High (1440 x 1440)
Max Throughput ³ (sides/hour)	50	39	24
Min. Line ⁴	3mil		75µm
Min. Text Height ⁴	20mil		0.5mm
Registration Accuracy ⁵	±1.4mil		±35µm
Depth of Focus	60mil		1.5mm
Alignment	Multiple-points registration, CCD camera, manual or automatic		
Print Sequence	True side A-A or side A-B		
Print Head	Dot size: 50-70µm Drop volume: min. 14pl		
Software	Software RIP, Windows, 274x input, Push-to-Print		
Ink Approvals	Various types of ink are available. MIL-55110, MIL-31032, ASTM E595, IPC-650, UL		
Dimensions W x D x H	162 x 183 x 150cm	60" x 72" x 55"	
Weight	1480Kg	3263lbs	

¹ Using clamps

² Thinner panels can be printed using custom tooling; Laser sensor panel thickness protection: up to 5.5mm

³ Throughput figures are for 17" x 23" image area including: handling, 3-point registration, alignment, scaling and other movements.

⁴ Actual printing modes, print times, and throughput depend on ink type.

⁵ At the highest resolution

⁵ FTG, 3σ, full format.

The Sprint-8 system is a class-1 laser product. Laser specifications: red laser diode, 650nm, 3mW max. power
Specifications are subject to change without notice

PCB81003(E)_11100



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