

# *Sprint™ Family* *Inkjet Legend Printing Solutions*



# Sprint™ Family

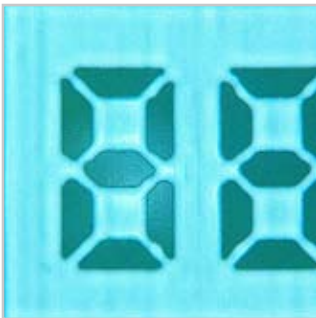
Utilizing the newest inkjet technologies, Orbotech's next generation Sprint models print superior quality legend at high speed on a wide range of panel thicknesses. Delivering the industry's highest performance, Sprint is optimized for high-end legend designs in high mix production of HDI and MLB PCBs.



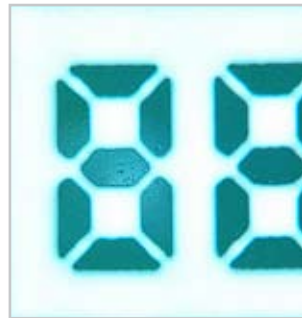
Other inkjets



Sprint straight lines



Other inkjets



Sprint excellent and uniform area fill

## Benefits

### Superior Quality at High Speed

- Production grade results in a single pass
- Printing down to 0.5mm height text and 3mil features
- Excellent and uniform area fill
- Straight lines in any angle

### Print on Any Rigid Panel

- Specially designed table to flatten thick and thin panels
- Pin-less alignment
- 1.5mm depth-of-focus (DOF) for uniform printing over thick traces

### Exceptional UCI (UV Curing Integrated) Technology™

- Superior control of drop size and position accuracy
- Elimination of two baking cycles and multiple panel handling
- Print side A-A or A-B

### Digital Printing

- Shortest time to market – print directly from CAM
- Save on stencils and screen costs
- Superior image placement and registration
- Easy traceability
- Clean process with the lowest cost of ink per print

### Easy to Learn & Operate

- Intuitive user interface using a touch screen
- Automated data transfer from any CAM system

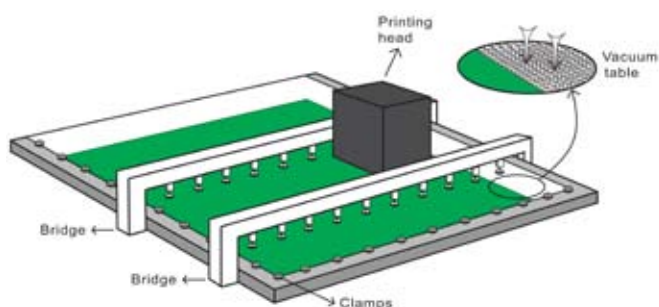


## Superior Quality at High Speed

Sprint eliminates the trade-off between printing quality and throughput. By utilizing variable drop size technology, Sprint prints superior quality legend in a single pass of the print head to significantly increase printing throughput. The system achieves straight lines at any angle and uniform coverage of fill areas.

### Print on Any Rigid Panel

- A combination of vacuum, clamps and retractable bridges completely flattens the printing area to ensure the highest quality printing on a variety of panel thicknesses.
- Pin-less alignment eliminates the need for pinning holes and reduces panel load/un-load time.
- High depth-of-focus (DOF) of 1.5mm enables uniform legend printing over non-uniform surfaces in one pass.

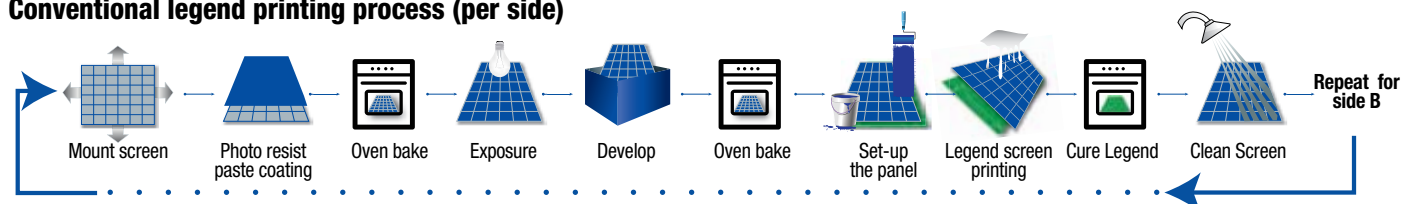


### UCI (UV Curing Integrated) Technology™



Orbotech's unique UCI Technology enables to achieve the highest quality with the best operational efficiency. A patented UV light source cures the ink immediately as it hits the surface, resulting in a completely cured legend after printing each side of the panel.

### Conventional legend printing process (per side)



### Sprint Inkjet Legend Printing (per panel)



### UCI Technology Advantages:

- Superior quality: Ink drops are cured instantly for uniform line width and height
- Reduced cycle time by eliminating two baking cycles
- Increased operational flexibility: print side A-A B-B, or side A-B

### Digital Printing

- Shorter time-to-market: replaces the lengthy screen preparation process
- Cost saving: eliminates costly stencils and screens
- Automatic registration and scaling. Achieve registration accuracy down to 35µm
- Traceability: multiple serialization and bar-coding options defined per panel, strip or even per individual PCBs
- Lowest ink cost per print: closed loop ink supply system for zero ink waste

### Easy to Learn & Operate

- Simple and easy operation requiring only minimal training. No process expertise is required
- Job setup is performed through an intuitive touch screen interface
- Fully automated data transfer from CAM

### Field-Proven Solution

Orbotech's field-proven Sprint family is the industry's best-selling inkjet legend printers.

- Leverages field experience from dozens of Sprint-8 systems in production
- Uses field proven inks from leading material suppliers, achieving up to 9H hardness, superior adhesion, excellent whiteness and are certified for UL and key MIL standards

