

System Description

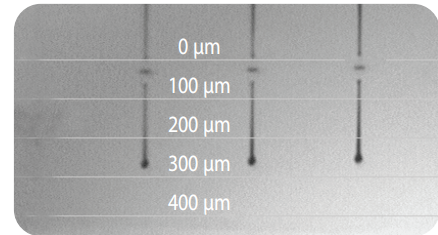
- Flat substrate, xyz stage, inkjet deposition system
- Low cost, user-fillable piezo-based inkjet print cartridges
- Built-in drop jetting observation system
- Fiducial camera for substrate alignment and measurement
- Variable jetting resolution and pattern creation PC-controlled with Graphical User Interface (GUI) application software
- Capable of jetting a wide range of fluids
- Heated vacuum platen
- Cartridge cleaning station
- Includes software



DMP-2850

Mechanical System

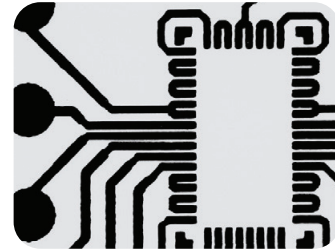
- Printable area
 - Substrate < 0.5 mm thickness: 210 mm x 315 mm (8.27 in x 12.4 in)
 - Substrate 0.5 - 25 mm thickness: 210 mm x 260 mm (8.27 in x 10.2 in)
- Repeatability: $\pm 25 \mu\text{m}$ (± 0.001 in)
- Substrate holder
 - Vacuum platen
 - Temperature adjustable; ambient to 60° C (140° F)
- System Footprint: 673 mm x 584 mm x 419 mm (26 in x 23 in x 16 in)
- Weight approximately 50.7 kg (111.8 lbs)
- Power 100-120/200-240 VAC 50/60 Hz 375 W maximum
- Operating range 15-40° C (59-104° F) at 5-80% RH non-condensing
- Altitude up to 2000 m
- Safety and EMC compliance
 - Safety: NRTL Certified to EN 61010-1, UL 61010-1, CSA 22.2 No. 61010-1
 - EMC: EN61326-1 Class A, FCC Part 15 Class A



Drop Watcher View

Fiducial Camera

- Allows substrate alignment using reference marks
- Allows positioning a print origin or reference point to match substrate placement
- Provides measurement of features and locations
- Provides inspection and image capture of printed pattern or drops
- Provides cartridge alignment when using multiple cartridges
- Allows matching drop placement to previously patterned substrate



Fiducial Camera View

Cartridge

- Type: Piezo-driven jetting device with integrated reservoir and heater
- Usable Ink Capacity: Up to 1.5 ml (user-fillable)
- Materials Compatibility: Many water-based, solvent, acidic or basic fluids
- Samba® Cartridge
 - 12 nozzles, single row, 75 DPI
 - 2.4 pL drop volume, 30 μm dot size (results may vary)



Cartridge

Control PC and Application Software

- Pre-loaded patterned templates
- Pattern preview
- Editors: Pattern, piezo drive waveform, cleaning cycle, substrate setting
- Bitmap (1 bit) files accepted

Replaceable Items

- Print cartridge with one-time user-fillable reservoir
- Cleaning station nozzle blotting pad
- Drop watcher fluid absorbing pad

