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PSjet-350



- Our PSject-350 is suitable for research and development for micro-patterning using EHD and inkjet technology.
- 3 Different heads are installed for various applications
 - **EHD (3 functions: drop on demand, electrospinning, electrospray)**
 - **Two different inkjet heads can be integrated.**
- Two different materials can be printed subsequently (within 0.7sec) either at the same location or different locations.
- 3 Axis stage [X,Y,Z], Linear stage: XY, Ball screw servo motor: Z stage

Printing methods

Bitmap Image Printing (Drop on demand)
Built in CAD system (Pscad)

Vector Print (continuous jet or Drop on demand)

Vector image to Raster image converting algorithm

Jetting monitoring

Real-Time jetting monitoring (EHD and microfab head)

Alignment camera (Inspection and exact droplet placement or target location)

Drop visualization

(Jetting speed and drop volume measurement, contact angle on substrate)

※Hardware performance

| Function | Specifications |
|--|---|
| Printheads for jetting | EHD (e-printing, e-spinning, e-spray) Fujifilm Dimatix Disposable head Microfab single nozzle head |
| ink viscosity range (EHD) | 1 ~ 50000 cP (for drop on demand: less than 100 cP) |
| minimum pattern size (drop on demand) | 3-4 um pattern line width using 3um nozzle (further reduced if smaller nozzle is used) |
| Maximum print speed (continuous jet type) | 500mm/s (for EHD continuous jet – spinning printing) |
| Compatible printing File | Image files such as Bitmap, JPG CAD dxf file (dxf), CAD built-in CAD |
| Printing mode | Drop on demand/Continuous jet mode (Raster printing/Vector printing) |
| High voltage range | DC 10kV, Pulse and arbitrary 2kV (bipolar) Arbitrary pulse shape can be applied |
| Software | Built-in CAD (PASCAD) is included / including operation manuals |
| Monitoring | Jetting monitoring visualization (monitoring camera)/ Printing Alignment (Alignment camera) |
| Temperature control | <ul style="list-style-type: none"> Substrate (60 degree or more, but not recommend higher temperature heating on substrate for safety reason) Nozzle part: about 60 degree (we did not test above 60) |
| Printing area | 200*200mm ² |
| 3-axis control | Including 3D compensation algorithm for EHD jet system |
| Precision position control | precision encoder 1um (can be less upon request) |
| Vacuum holder and rotation stage | Rotation manual stage equipped for vacuum holder and alignment of the substrate |