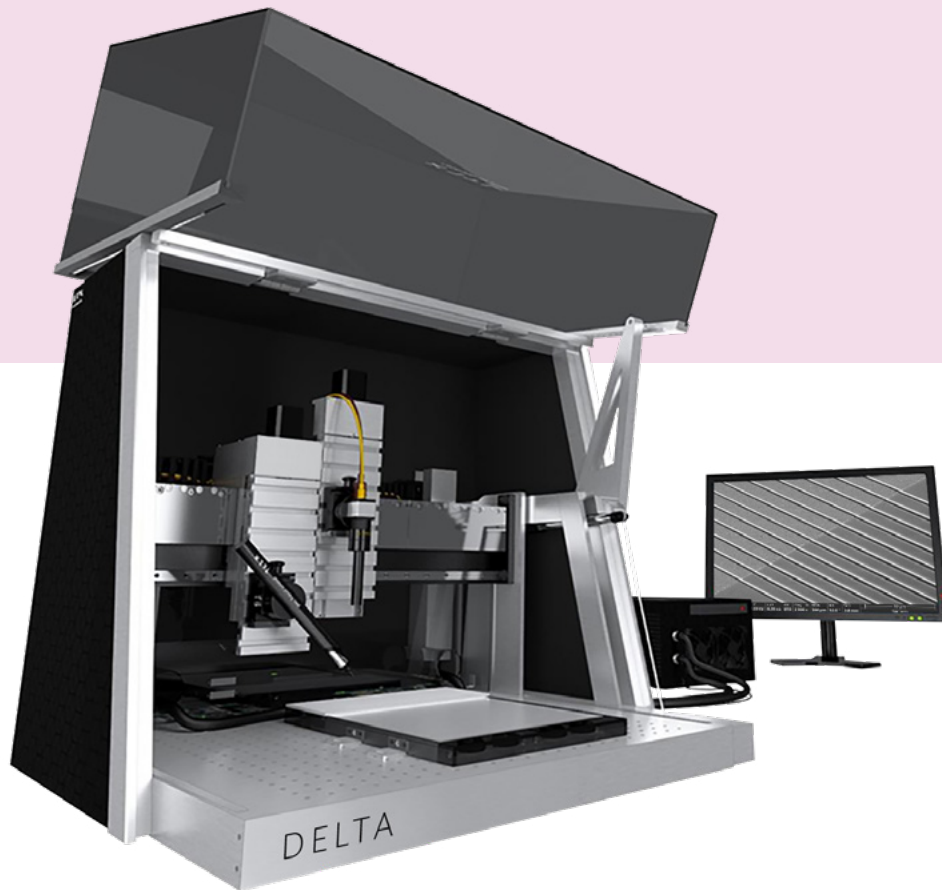


XTPL[®] Delta

High-precision rapid prototyping printing system for microelectronics



Render for illustration purpose only. The design of the final product may differ from the one shown.

XTPL[®]

shaping global nanofuture

XTPL[®] Delta Printing System with Ultra-Precise Deposition technology and XTPL[®] high viscosity conductive inks provides ultra-high resolution and precision for rapid prototyping applications.

FEATURES

- 1.5 - 10 μm feature size with aspect ratio up to 1:1
- Variety of possible patterns (lines, trails, micro-dots)
- High step coverage
- High accuracy motion system
- Real time image processing system
- Plug-and-play solution

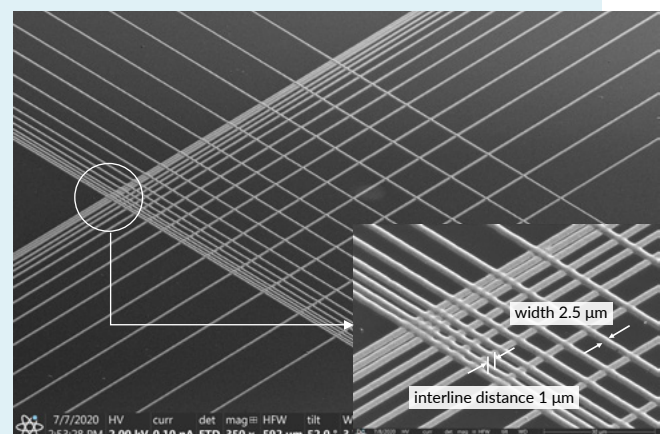
FINE PRINTED LINES AND MESHES

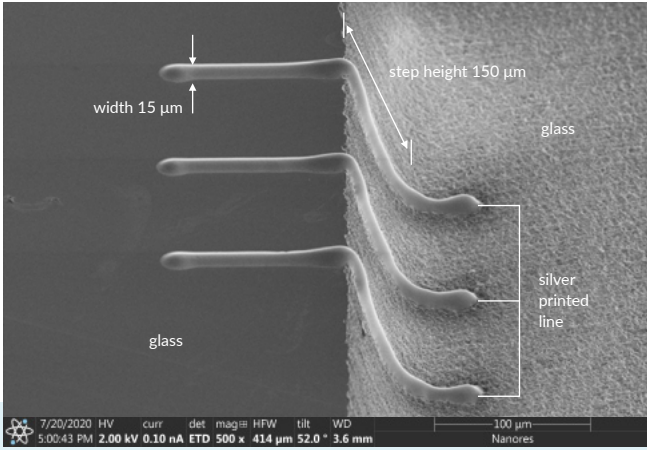
ABILITY TO:

print high resolution (2.5 μm width) parallel and perpendicular silver lines with interline distance down to 1 μm

APPLICATIONS:

IC packaging, advanced PCB manufacturing & repair, printed TCF





HIGH STEP COVERAGE

ABILITY TO:

cover complex substrate topography up to 150 μm step with a single continuous silver printed line of 15 μm width

APPLICATIONS:

flexible hybrid microelectronics, microLED displays, advanced IC packaging 3D printed electronics

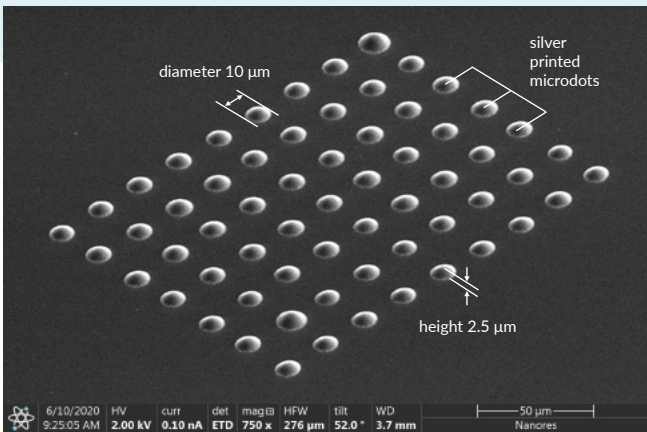
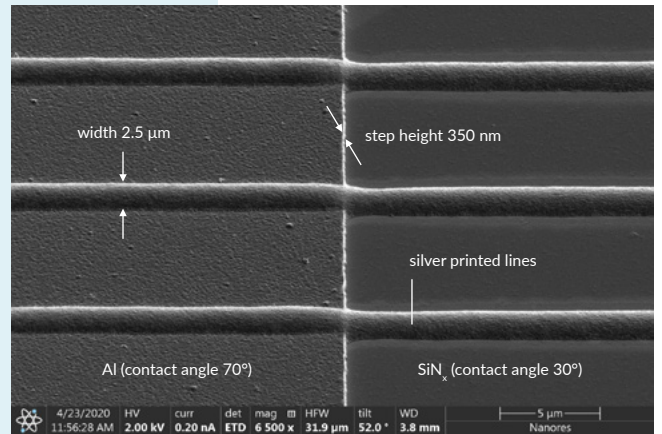
HYBRID SUBSTRATES

ABILITY TO:

print lines with homogeneous width on materials with different wettability, e.g. Al and SiN_x

APPLICATIONS:

large area microelectronics, displays (LCD, OLED), MEMS



PRINTED CONDUCTIVE MICRODOTS

ABILITY TO:

print regular silver microdots with a diameter in the range of single to several μm, with the height of up to 3 μm

APPLICATIONS:

flip-chip conductive die attach, MEMS

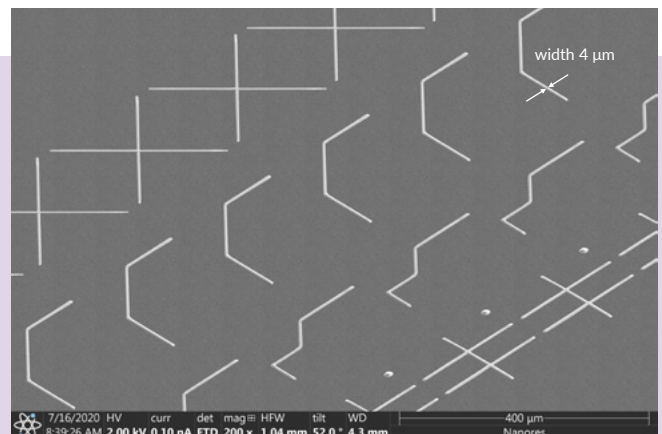
ARBITRARILY-SHAPED CONNECTIONS

ABILITY TO:

print pre-designed shapes with variety of possible patterns

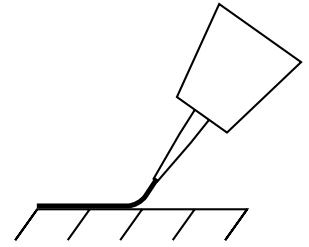
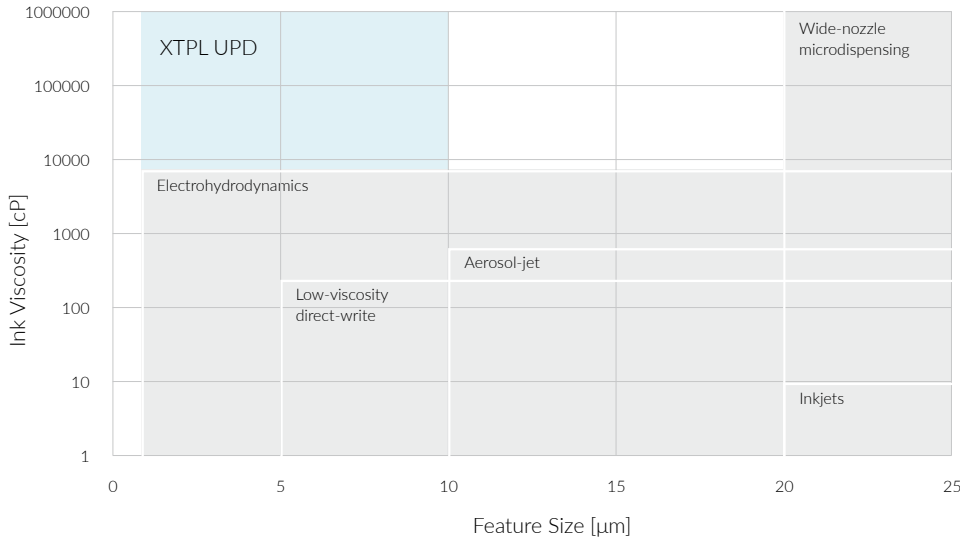
APPLICATIONS:

printed microelectronics, large area microelectronics, displays (LCD, OLED), printed TFT, MEMS



UPD Technology

UPD TECHNOLOGY delivers unique additive manufacturing capabilities for microelectronics industry through printing of ultra fine structures using high viscosity inks.

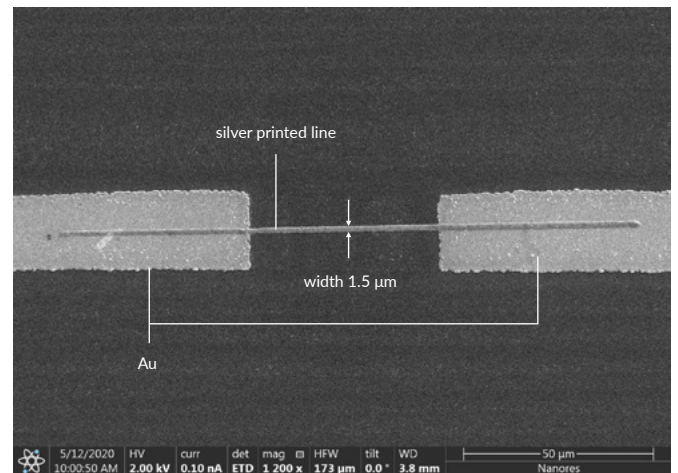


XTPL® Ultra-Precise Deposition

- Pressure-based direct writing
- Tailored high-viscosity inks
- Ultra-narrow flexible nozzle
- Purely additive
- No electric field required

ITEM	VALUE
Feature size	1.5 – 10 µm
Substrate alignment	3-point leveling table with rotation error correction
Substrate size	50 x 50 mm
Process preview	Live video with recording
XY motor movement accuracy	2 µm
XY motor movement repeatability	0.5 µm
Z motor movement accuracy	0.5 µm
Z motor movement repeatability	0.5 µm
Printer cabinet dimensions (excluding peripherals and Printing Workstation)	800 mm x 800 mm x 890 mm
Printer weight	135 kg
Utilities required	compressed air 10 bar, electrical power supply 110/230V

Ultra-high resolution of printed features



Get your quotation at

✉ sales@xtpl.com
☎ +48 71 707 22 04

XTPL is a globally innovative company developing breakthrough, additive manufacturing technology for ultra-precise printing of nanomaterials. Contact us for more details.

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