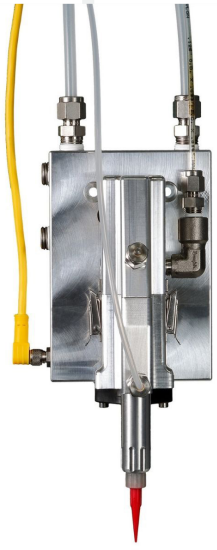
NanoJet™ Print SubSystems

AEROSOL PRINTING MADE EASY

The NanoJet™ print subsystem is the leading industry aerosol-based solution for printed electronics and biotech applications, delivering superior performance for a variety of substrate shapes, ink types, and electronic requirements. The NanoJet™ print subsystem provides IDS' highly reliable, next generation aerosol printing technology in a package that is easily integrated onto existing print systems. The NanoJet™ print subsystem provides improved print performance in a reliable, user-friendly configuration for production quality printing.

SUPERIOR PRINTING PERFORMANCE

- Satellite-free
- Conformal
- Accuracy
- High aspect ratios



Features:

Easy integration into existing printers

Point of use aerosol generation

Interchangeable ink cartridges

Compact print head

Low cost of ownership

Reliable, easy operation

Easy to clean

1 or 2 material print head

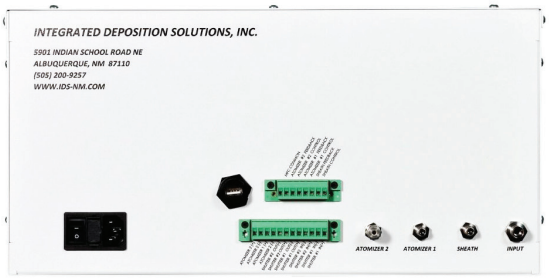
Independent/simultaneous printing of each material (Dual material option)

NanoJet ™ Printer Utility Interface

POWER - 120/240VAC - 5/3A 50/60 Hz

GAS - Dry air or N_2 - 10 psig/0.7 Bar, 200 sccm

COOLING - 2 lpm flow, 60 W min.



Print Performance

PRINT STABILITY

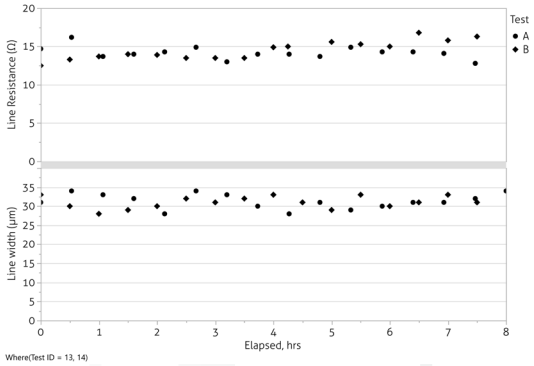
Demonstrated 8-hour unattended print stability

Ag nanoparticle ink

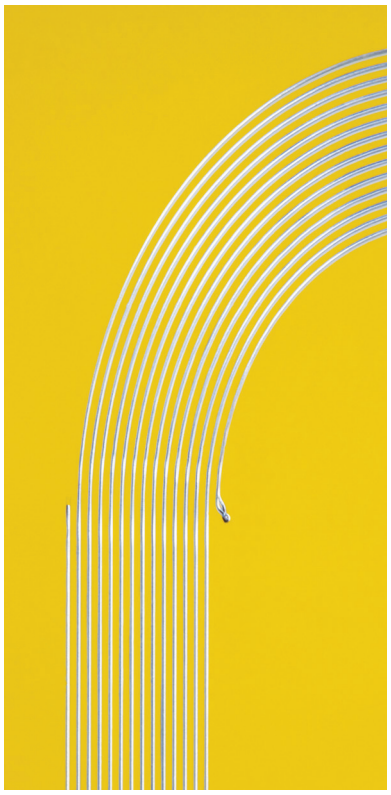
Continuous operation

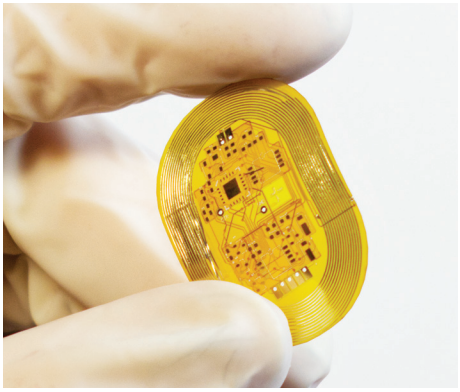
MEASURED PRINT PROPERTIES

Line width 50 µm ±4µm



8 hour stability performance





PROCESS ATTRIBUTES

Inks
Polymer, Metal, Resistive, Magnetic

Line
10 - 1000µm

Single Pass Line Thickness
100 nm to 4 µm

Working Distance
2 - 10 mm

Print Speed
5 - 50 mm/s

ADVANTAGES

Production Oriented Solution
Mean-Time Between Assist >4 hour

Line pitch standard dev. +/- 5µm

<5% variation for key performance parameters: linewidth & resistance