

The Future of Printed Electronics

Explore what's possible with printed electronics and push the limits of functional materials research and development.

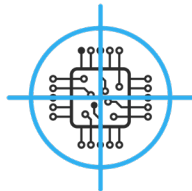
Change designs on the fly and get immediate feedback on new ideas, accelerating R&D timelines and reducing costs.

Experiment with a wide range of substrates and screen-printable materials. Validate designs in the lab and seamlessly transition to production equipment.



Pressure-feedback dispensing

Precision printing with realtime closed-loop pressure feedback, no tooling or screens required.



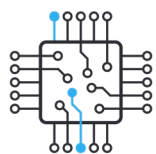
Integrated vision system

Align, print, and inspect with confidence using machine vision and AR overlay print preview.



Materials freedom

Print anything on everything: simply fill an EFD cartridge and attach any luer-lock nozzle.



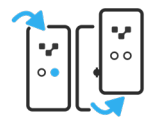
Flexible or rigid mounting

Print on nearly any substrate with an 8"x11" titanium vacuum table and threaded mounting grid.



Software for everyone

Browser-based app and network connectivity (WiFi, Ethernet) for a modern user experience.



Modular platform

Built to expand, with two module ports, quick-change module swapping, drop-in fixturing, and ethernet/USB/WiFi connectivity.



NOVA specifications

Platform spec

Size	675 mm x 605 mm x 345 mm (26.6" x 23.8" x 13.6")
Weight	35 kg (77 lbs)
Print area	220 mm x 300 mm (8.7" x 11.8")
Power requirements	350W @120VAC/240VAC (120V/60Hz, 230V/50Hz)
Communication/connectivity	1x USB-A 2.0, 1x USB-A 3.0, Ethernet, WiFi
Step resolution	2.5 μ m x 7 μ m x 1.25 μ m
XY tool-tool positional accuracy	+/- 15 μ m
File formats	Gerber
Interface	Browser-based web app
Camera resolution	17 μ m/pixel
Tool slots	Two
Substrate thickness	30 mm
Vacuum pump noise level	At 30% power (standard): 58 dB at 1 meter

Mounting options

Custom fixturing	M5 threads, 40 mm square grid, 6 mm depth
Vacuum module (optional)	Porous titanium work area, integrated pump

Shipping details

Pallet dimensions	29 $\frac{3}{4}$ " x 27 $\frac{1}{2}$ "
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Smart Dispenser

Max pressure	70 PSI
Max temperature	40°C
Syringe size	5cc
Maximum syringe fill capacity	3cc
Nozzle geometry	Luer lock, < 30 mm length
Particle size	Nozzle dependent. <25 µm for standard 150 µm nozzle.
Max nozzle length	30 mm

Smart probe

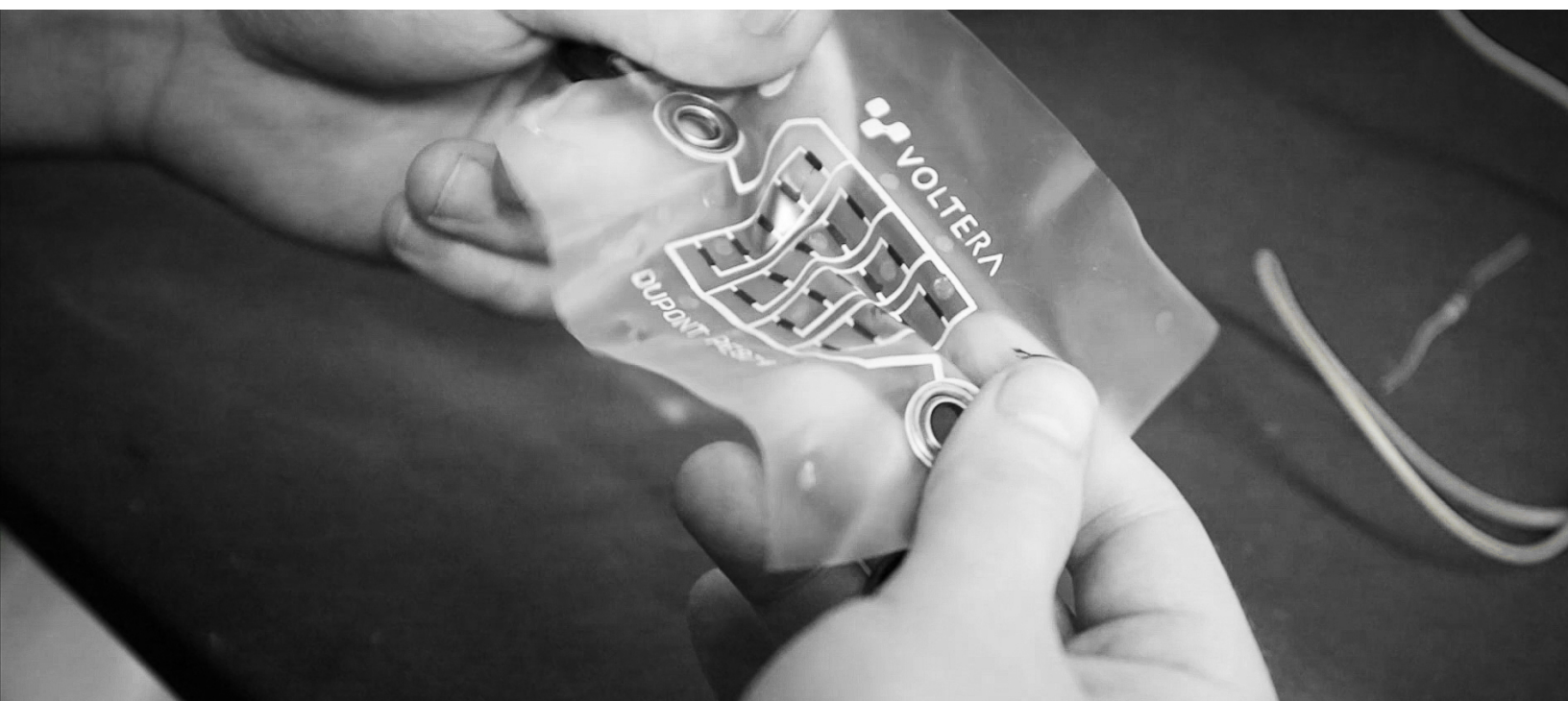
Repeatability	+/- 2.5 µm
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Performance spec

Minimum tracewidth	*100 µm (0.10mm) using ACI FE3124 + 100 µm nozzle
Print height resolution	+/- 10 µm (0.01 mm)
Minimum pin pitch	400 µm (0.4 mm)
Minimum passive	0201* Imperial

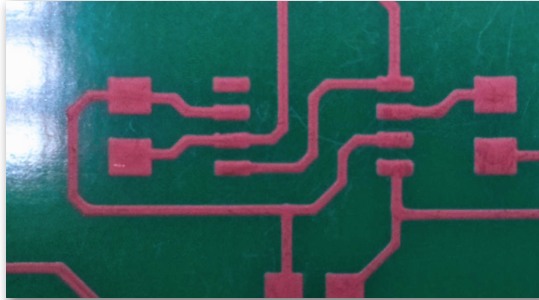
Included materials

Inks	ACI RD0142A
Substrates	PET, Kapton, TPU

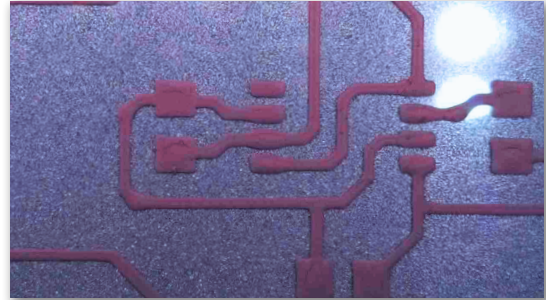


Enhanced Materials Flexibility

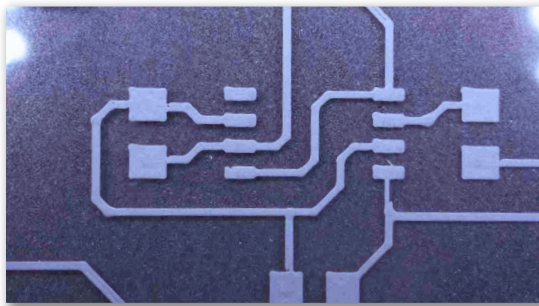
With NOVA, the world of conductive inks is at your fingertips. Choosing the right ink for your project is no longer limited by the dispensing technology you need to use to get to proof of concept. Experience the flexibility that different inks offer to solve unique problems in new and interesting ways.



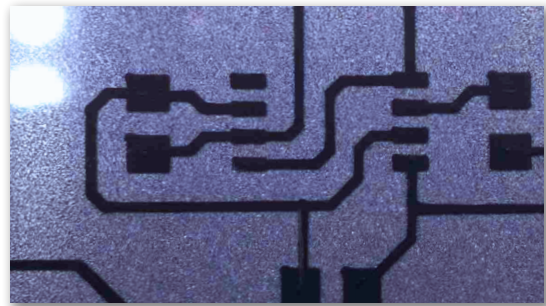
Copprint LF371 Nanocopper ink
on FR4



Copprint LF371 Nanocopper ink
on PET



ACI FE3124 screen printable silver
conductive ink on PET



NovaCentrix HPR-084 Carbon screen ink
for printed resistors on PET

Camera-Based Inspection and AR Overlay

With a camera focused directly down from the module hub, NOVA provides you with improved accuracy and precision for both calibration and printing. Get a sense of what your design will look like on your substrate before you print it with our AR overlay feature. Save on frustration and materials by knowing exactly where ink will be from the word "go".

