VOLTERA NOVA

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.

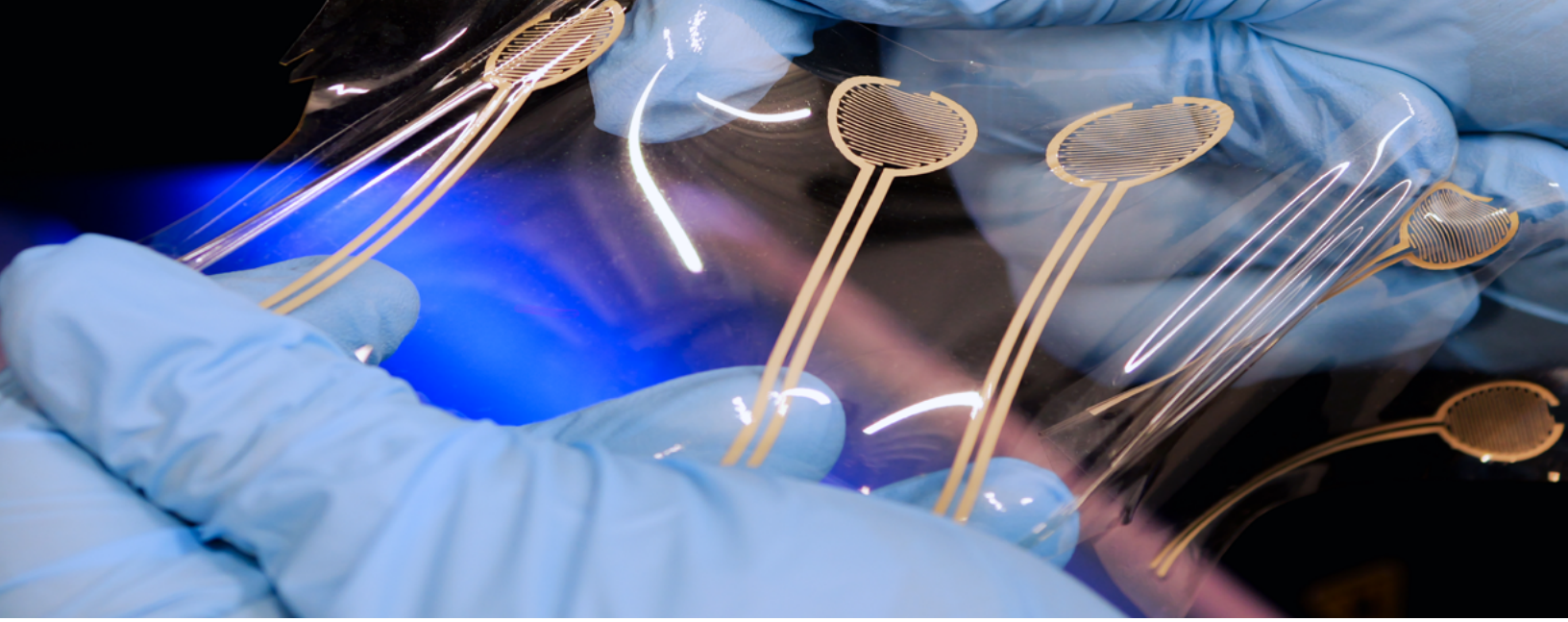
Software for everyone

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.

Contact Voltera's **sales@voltera.io** for more information.



NOVA specifications

General	Metric	Imperial
Print area	220 mm × 300 mm x 40 mm	8.7” × 11.8” 1.6”
XYZ resolution	2.5 µm x 7 µm x 1.25 µm	
Module slots	2	
Compatible modules	• Smart Dispenser • Smart Probe • Vacuum table	
Compatible substrate materials	• Rigid: PCBs, glass, ceramic, etc. • Flexible: Polyimide, PET, etc. • Stretchable: TPU, etc. • Porous: Paper	
Substrate thickness	Up to 30 mm	Up to 1.2”
Substrate fixturing	• Elevated clamping • Vacuum table • Customizable (M5 threads, 40 mm grid)	
Alignment and registration	Manual with camera assist (8 MP, 17 µm/px resolution)	
Print area temperature	Ambient, no heater	

Software	
Application type	Browser-based web application
Recommended browser	Chrome
File formats	• Gerber • SVG (beta)

Hardware	Metric	Imperial
Printer dimensions	675 mm x 605 mm x 345 mm	26.6” x 23.8” x 13.6”
Weight	35 kg	77.2 lbs
Power requirements	100-240 VAC, 50/60 Hz, 221 W	
Connectivity	• 1x USB-A 2.0 • 1x USB-A 3.0 • Ethernet • Wi-Fi*	

**With use of provided Wi-Fi dongle*

Smart Dispenser

Dispensing technology	Direct ink write (DIW)
Compatible syringe barrels	Nordson EFD - 5CC
Syringe capacity	Up to 2.5 mL
Recommended viscosity range	1,000 - 1,000,000 CPS
Compatible fluids	• Conductive Ink • Solder Paste • Other
Wetted materials	• Polypropylene (PP) • Stainless Steel (SS) • Fluroelastomer (FKM)
Temperature control	Up to 40°C
Pressure control	Yes, configurable
Max pressure	Up to 70 PSI
Nozzle compatibility	Luer lock
Feature size	Min, 0.1 mm

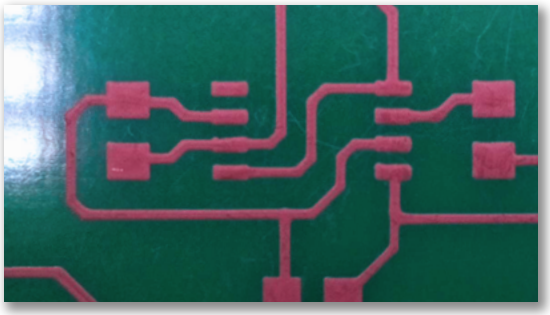
Smart Probe

Repeatability	+/- 2.5 µm
Trigger force	1.2 N max
Stylus material	Ruby

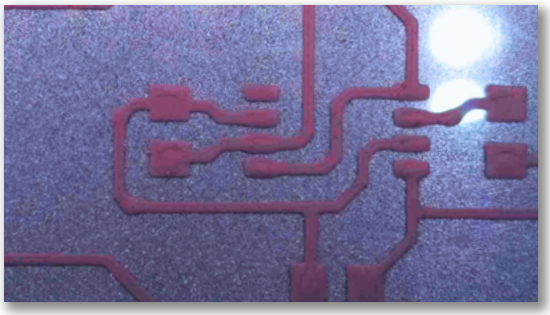
Vacuum table	Metric	Imperial
Size	220 mm x 300 mm	8.7" x 11.8"
Vacuum pressure	85 kPa	
Flow rate	80 L/min	

Enhanced Materials Flexibility

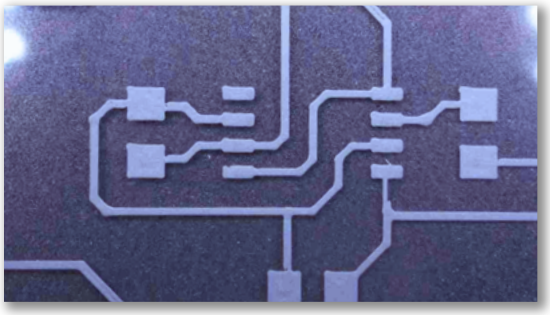
With NOVA, the world of conductive inks is at your fingertips. Choosing the right ink for your project is no longer limited by the dispensing technology you need to use to get to proof of concept. Experience the flexibility that different inks offer to solve unique problems in new and interesting ways.



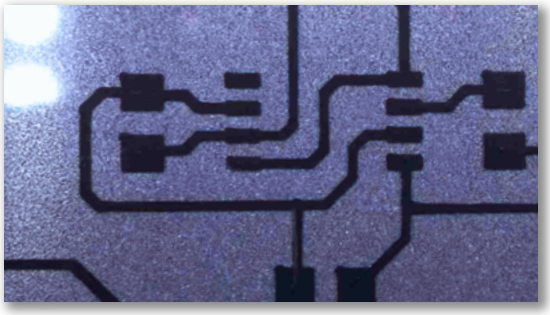
Copprint LF371 Nanocopper ink
on FR4



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”.