

VOLTERA NOVA

Additive Electronics Evolved

Create smart devices on your benchtop with Voltera's next generation printing platform.

Dispense high resolution features down to 100 μm tracewidth*.

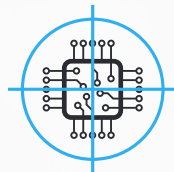
Accelerate your workflows with intelligent calibration and alignment.

Configure for your needs with quick-swap modules and work area.



PRESSURE-FEEDBACK DISPENSING

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



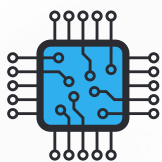
INTEGRATED VISION SYSTEM

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.



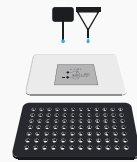
FLEXIBLE OR RIGID MOUNTING

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 2 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

NOVA PLATFORM SPEC

Size	675mm x 605mm 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	1-USB-A 2.0, 1-USB-A 3.0, Ethernet, WiFi
Step resolution	2.5 μ m (X) x 7 μ m (Y) x 1.25 μ m (Z)
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
Z-axis clearance	Max 40mm from module hub to mounting plate *Available clearance depends on nozzle length and substrate geometry/thickness
Vacuum pump noise level	At 30% power (standard): 58 dB at 1 meter

MOUNTING OPTIONS

Custom fixturing	M5 threads, 40mm square grid, 6mm 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, < 30mm length
Particle size	Nozzle dependent. <25µm for standard 150µm nozzle.
Max nozzle length	30mm

PRECISION TOUCH PROBE

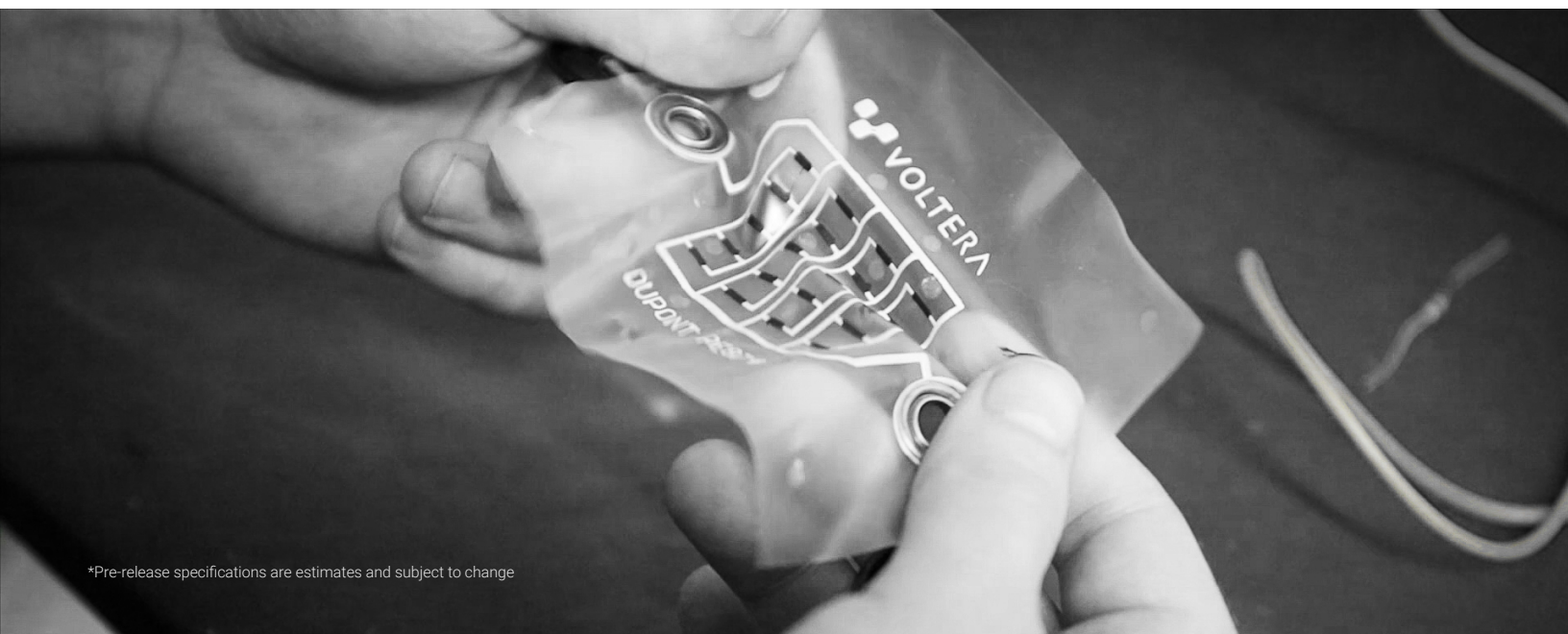
Repeatability	+/- 2.5µm
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PERFORMANCE SPEC

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

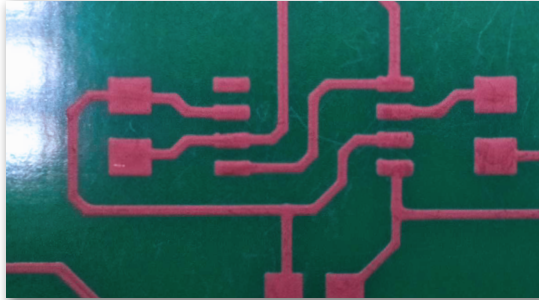
SUPPLIED MATERIALS AT LAUNCH

Inks	ACI FE3124
Substrates	PET, Kapton
Solder pastes	Nordson T4 SnBiAg0.4

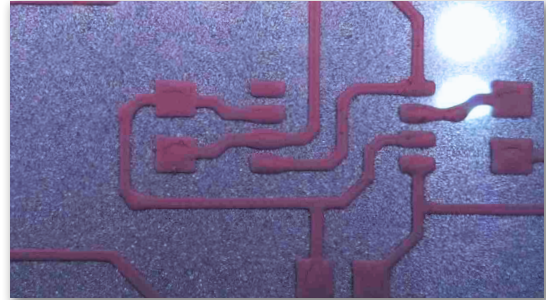


Enhanced Materials Flexibility

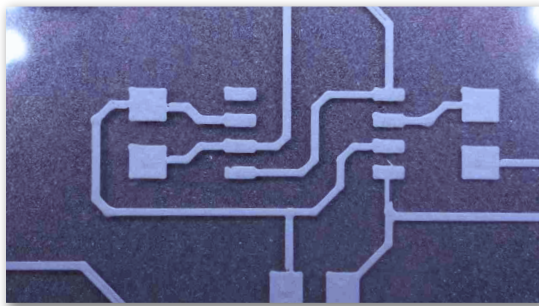
With NOVA, the world of conductive inks is at your fingertips. Choosing the right ink for your project is no longer limited by the dispensing technology you need to use to get to proof of concept. Experience the flexibility that different inks offer to solve unique problems in new and interesting ways.



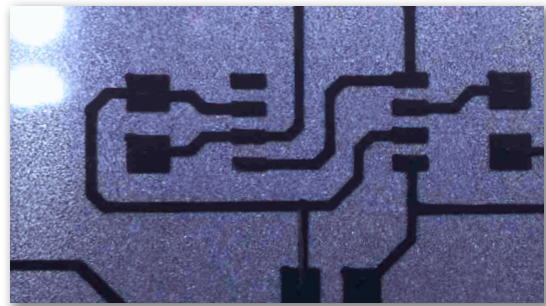
Copprint LF371 Nanocopper ink on FR4



Copprint LF371 Nanocopper ink on PET



ACI FE3124 screen printable silver
conductive ink on PET



NovaCentrix HPR-o84 Carbon screen
ink for printed resistors on PET

Camera-Based Inspection & 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".

