

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*.

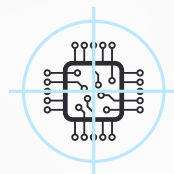
Accelerate your workflows with intelligent calibration and alignment.

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.



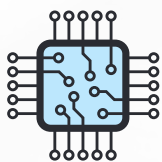
INTEGRATED VISION SYSTEM

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.



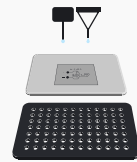
FLEXIBLE OR RIGID MOUNTING

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 [Matthew Ewertowski](#) for more information.

*Pre-release specifications are estimates and subject to change



The 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 | 2.5µm (X) x 7µm (Y) x 1.25µm (Z) |
| XY tool-tool positional accuracy | +/- 15µm |
| File formats | Gerber |
| Interface | Browser-based web app |
| Camera resolution | 17µm/pixel |
| Tool slots | Two |

MOUNTING OPTIONS

| | |
|------------------|--|
| Custom fixturing | M5 threads, 40mm square grid, 6mm depth |
| Vacuum module | Porous titanium work area, integrated pump |

SHIPPING DETAILS

| | |
|-------------------|---------------|
| Pallet dimensions | 29 ¾" x 27 ½" |
|-------------------|---------------|

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. |

PRECISION TOUCH PROBE

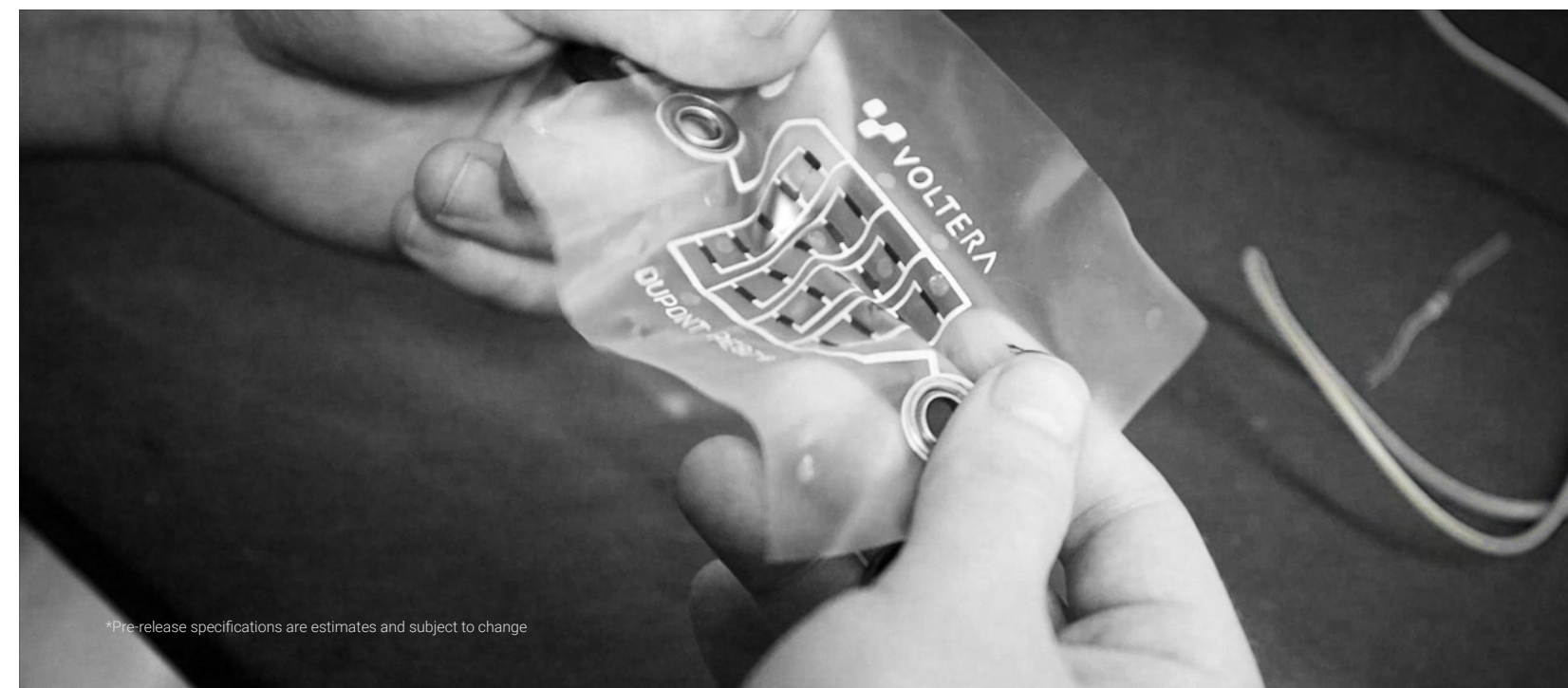
| | |
|------------------------|------------------------------------|
| Measurement resolution | +/- 2.5µm (Z-axis step resolution) |
|------------------------|------------------------------------|

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

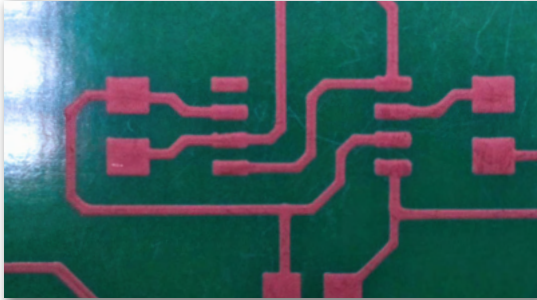
| | |
|---------------|----------------------|
| Inks | ACI FE3124 |
| Substrates | PET, Kapton |
| Solder pastes | Nordson T4 SnBiAg0.4 |



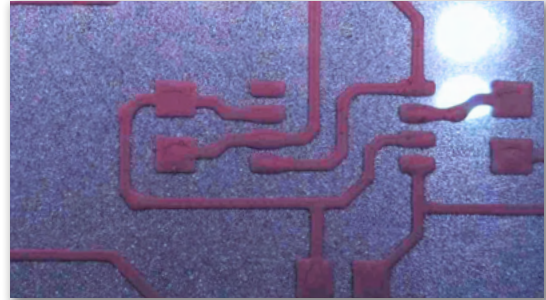
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Enhanced Materials Flexibility

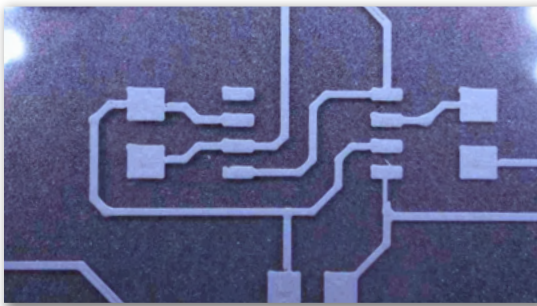
With NOVA, the world of conductive inks is at your fingertips. Choosing the right ink for your project is no longer limited by the dispensing technology you need to use to get to proof of concept. Experience the flexibility that different inks offer to solve unique problems in new and interesting ways.



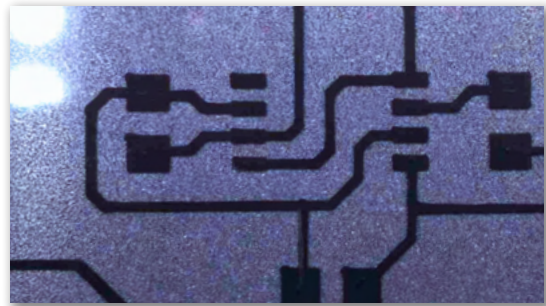
Copprint LF371 Nanocopper ink on FR4



Copprint LF371 Nanocopper ink on PET



Novacentrix FG57B 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".

