



MARCH MegaVIA Plasma System

Advanced, Large-Chamber Plasma Uniformity

The MegaVIA™ plasma system expands the capabilities of the MARCH VIA series, enhancing process capacity for larger panels while conserving valuable floor space. Like its VIA series counterparts, this system delivers uniform plasma treatment results that align with the stringent requirements of PCB manufacturing.

The MegaVIA system provides:

Industry-Leading Throughput

- High UPH
- Superior pump down and vent performance

Advanced, Large-Chamber Plasma Uniformity

- For panel sizes up to 30 x 52 inches
- With power-power electrode configuration for uniform plasma treatment and etchback of both sides of a PCB
- Balanced vacuum and gas flow, electrode design, and temperature management technologies for optimum uniformity

Application Flexibility

- PC touch-screen HMI
- Wide range of data collection and control capabilities
- Unlimited recipe storage supports batch manufacturing
- Password protection prevents unauthorized login

Key Application Details

- PTFE activation, desmear, and etchback for multi-layer panel fabrication technologies
- High throughput of multi-layer panels for automotive, telecommunications, and data storage applications
- Patented system technologies produce superior throughput and process uniformity within high aspect ratio holes
- Low CF₄ gas consumption for desmear and etchback, contributes to best-in-class cost of ownership

Specifications

Enclosure Dimensions	W x D x H – Footprint	1652 W x 1782 D x 2732 H mm (65 W x 70 D x 108 H in.)
	Net Weight	2720 kg (6000 lbs.)
Chamber	Available Cells	16
Electrodes	Configuration	Temperature Controlled Power-Power
	Working Area	1320 D x 760 H mm; (52 D x 30 H in.)
RF Power	Standard Wattage	15 kW
	Frequency	40 kHz
Gas Control	Available Flow Volumes	500, 1000, 2000 or 5000 sccm
	Maximum Number of MFCs	5
Control System	Interface	EPC with PC-Based Touch Screen Interface
Vacuum Pump	Standard Purged Pump Package	1110 cfm
	N2 Pump Purge Flow	14 slm
Facilities	Power Supply	380 - 415 VAC, 40 A, 3-Phase WYE + Ground; 50/60 Hz
	Process Gas Fitting Size & Type	6.35 mm (0.25 in.) Swagelok
	Process Gas Purity	CF4 = 99.97%; O ₂ = 99.996%; N ₂ = 99.99%; Ar = 99.999%;
	Process Gas Pressure	0.69 bar (10 psig) min. to 1.03 bar (15 psig) max., regulated
	Purge Gas Fitting Size & Type	9.5 mm (0.375 in.) Swagelok Tube
	Purge Gas Purity	N ₂ = 99%
	Purge Gas Pressure	4.83 bar (70 psig) min. to 5.17 bar (75 psig) max., regulated
	Pneumatic Valve Fitting	9.5 mm (0.375 in.) Swagelok
	Pneumatic Gas Purity	CDA, Oil Free, Dewpoint ≤7°C (45°F), Particulate Size <5 µm
	Pneumatic Gas Pressure	6.2 bar (90 psig) min. to 6.9 bar (100 psig) max., regulated
	Exhaust Fitting	NW40 38.1mm (1.5 in.) OD Half Nipple
	Electrode Coolant Fittings	Inlet Fitting: 12.7 mm (0.5 in.) OD hose barb Outlet Fitting: 12.7 mm (0.5 in.) OD hose barb
	Electrode Coolant Requirements	38 Lpm (10 gpm) min. @ 2.76 bar (40 psig) min. differential 5.52 bar (80 psig) max static Inlet temp: 15-35°C (60-95°F), 5°C min above dew point. Min. Capacity: 53,000 BTU/hr Distilled Water
	Auxiliary Coolant Fittings	Inlet Fitting: 12.7 mm (0.5 in.) OD hose barb Outlet Fitting: 12.7 mm (0.5 in.) OD hose barb
Auxiliary Coolant Requirements	38 Lpm (10 gpm) min. @ 2.76 bar (40 psig) min. differential 5.52 bar (80 psig) max static Inlet temp: 15-35°C (60-95°F), 5°C min above dew point Min. Capacity: 38,000 BTU/hr Distilled Water	
Compliance	Certifications	USA: EH&S/Ergonomics and International: CE Marked
Ancillary Equipment	Gas Generators	Nitrogen
	Facilities	Chiller, Scrubber, Transformer

System Package

Nordson Electronics Solutions builds the future of electronics reliability all across the globe. We're proud of the decades of service and solutions we've provided to enhance component reliability. No matter where you are, you've likely manufactured or purchased a product made reliable with our equipment. The MegaVIA offers large-chamber throughput and reliability for printed circuit board assembly applications, designed to last and provide cutting-edge capabilities.

For more information, contact us at info-electronics@nordson.com.

Essential	Advanced throughput and yield for large panels.	Accommodate panel sizes up to 30 x 52 inches. Accelerate throughput and yield with a power-power electrode configuration that allows both sides of the substrate to receive exceptionally uniform etchback treatment. Balanced vacuum, gas flow, electrode design, and temperature management technologies enhance optimal performance.
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