

ProVIA™ Plasma System

Features and Benefits

- High throughput of HDI, flexible and rigid panels for maximum production flexibility
- Accommodates multiple panel sizes within a small footprint to consume minimal floor space
- Fast units per hour (UPH) processing to meet today's demanding manufacturing schedules
- Low CF4 gas consumption for desmear applications, contributes to the lowest cost of ownership in its class
- Patented system technologies produce superior process uniformity at high throughput



Superior Plasma Uniformity for High Throughput PCB Treatment

Nordson MARCH's ProVIA™ system is specifically configured to meet the demands of today's high throughput PCB manufacturing operations. Plasma treatment uniformity is a key operational feature in desmear and etch back applications for HDI, flexible and rigid circuit board manufacturing technologies. The ProVIA system delivers!

The ProVIA system is completely self-contained, requiring minimal floor space. The vacuum system, plasma chamber, control electronics, and 40 kHz power supply are housed in a single enclosure. Full front and rear access allows for convenient service to all interior components. The pump is positioned on rollers for easy removal. No side access is required allowing for even greater floor space savings.

Application Specific Technology

The ProVIA system incorporates the best of Nordson MARCH's market leading technology combined with novel application specific technology development based

on our greater than 25 years of experience. Through extensive research and development, the ProVIA system presents unique vacuum and gas flow technology, new electrode designs, and superior temperature management. The careful balance of these critical design elements and process recipe parameters delivers a system that creates the most uniform PCB treatment for key applications like desmear and landing pad cleaning.

The ProVIA system's superior performance capabilities are complemented by very attractive low-cost-of-ownership aspects. The system features a very compact and service-friendly design. The vertical loading concept and the use of easy loading carts minimizes any idle time which generates high levels of productivity. The fast vacuum pump down and greatly enhanced process cycle times further add to the throughput and productivity of the system.

Equipped with a touch-screen PC Operator Interface, the ProVIA system provides a wide breadth of control capability and data collection. Unlimited recipes can be stored for easy switching of plasma processes from batch to batch. Password protection ensures that no unauthorized entries can be made.



Specifications: ProVIA™ Plasma System

Enclosure Dimensions	W x D x H – Footprint	1652W x 1747D x 2445H mm (65W x 69D x 97H in.)
	Net Weight	1776 kg (3915 lbs)
Chamber	Number of Available Cells	13
Electrodes	Configuration	Temperature Controlled Power-Power
	Working Area	762D x 610H mm; (30D x 24H in.)
RF Power	Standard Wattage	5 kW
	Optional Wattage	10 kW
	Frequency	40 kHz
Gas Control	Available Flow Volumes	500, 1000, 2000 or 5000 sccms
	Maximum Number of MFCs	5
Control	Interface	EPC with PC-Based Touch Screen Interface
Vacuum Pump	Standard Purged Dry Pump	530 cfm
	Cooling Water Flow	9.5 slm
	N2 Pump Purge Flow	14 slm
	Standard Booster Pump	550 cfm
Facilities	Power Supply	208 VAC, 50 A, 3-Phase + Ground; 50/60 Hz
	Process Gas Fitting Size & Type	6.35 mm (0.25 in.) Swagelok
	Process Gas Purity	CF4 = 99.97%; O2 = 99.996%; N2 = 99.99%; Ar = 99.999%; H2 = 99.999%
	Process Gas Pressure	1.03 bar (15 psig) min. to 1.7 bar (25 psig) max., regulated
	Purge Gas Fitting Size & Type	9.5 mm (0.375 in.) Swagelok Tube
	Purge Gas Purity	N2 = 99.99%
	Purge Gas Pressure	1.03 bar (15 psig) min. to 1.7 bar (25 psig) max., regulated
	Pneumatic Valves Fitting Size & Type	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
Compliance	USA	EH&S/Ergonomics
	International	CE Marked
Ancillary Equipment	Gas Generators	Nitrogen, Hydrogen (requires Additional Non-Optional Hardware)
	Facilities	Chiller, Scrubber, Transformer

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