



MARCH MaxVIA and MaxVIA-Plus

High-Throughput Plasma Treatment for Printed Circuit Board Assembly

The MaxVIA™ and MaxVIA™-Plus plasma systems build on the success of the MARCH VIA product series to support high-throughput printed circuit board manufacturing with outstanding plasma treatment uniformity.

The MaxVIA and MaxVIA-Plus systems provide the following:

Industry-Leading Efficiency and Plasma Uniformity

- Vertical loading and easy-to-use carts minimize idle time to increase productivity. The fast vacuum pump down and enhanced process cycle time boost productivity further.
- A single space-saving enclosure houses the vacuum system, plasma chamber, control electronics, and 40 kHz power supply.
- The unique power-power electrode configuration generates a balance, allowing both sides of the substrate to receive uniform plasma treatment.

Application Flexibility

- Equipped with a touchscreen PC Operator Interface, the system provides a range of control and data collection capabilities.
- Store unlimited recipes for easy batch-to-batch transition. Password protection prevents unauthorized login.
- Accommodates a variety of panel sizes within a small footprint.

Key Applications and Benefits

- High Flux Electrode (HFE) design with a temperature-controlled cooling loop delivers superior plasma treatment uniformity for PCB panel, desmear, landing pad cleaning, etchback for HDI, and flexible and rigid circuit board applications.
- High throughput.
- Low CF₄ gas consumption for desmear and etchback applications contributes to the lowest cost of ownership in their class.
- Unique vacuum and gas flow technology, advanced electrode designs, and superior temperature management.
- Provides front and rear system access to all interior components for convenient service.

MaxVIA and MaxVIA-Plus

Specifications

| | | |
|-----------------------------|-------------------------------------|--|
| Enclosure Dimensions | W x D x H – Footprint | 1652 W x 1747 D x 2445 H mm (65 W x 69 D x 97 H in.) |
| | Net Weight | MaxVIA: 2330 kg (5137 lbs) |
| | | MaxVIA-Plus: 2380 kg (5247 lbs.) |
| Chamber | Available Cells | MaxVIA: 13 |
| | | MaxVIA-Plus: 15 |
| Electrodes | Configuration | Temperature Controlled Power-Power |
| | Working Area | 1118 D x 610 H mm; (44D x 24H in.) |
| RF Power | Standard Wattage | 10 kW |
| | Frequency | 40 kHz |
| Gas Control | Available Flow Volumes | 2000 or 5000 sccms |
| | Maximum Number of MFCs | 4 |
| Control System | Interface | EPC with PC-based touchscreen interface |
| Vacuum Pump | Standard Purged Pump Package | 530 cfm |
| | Optional Purged Pump Package | MaxVIA: 1110 cfm |
| | Cooling Water Flow | 9.5 slm |
| | N2 Pump Purge Flow | 14 slm |
| Facilities | Power Supply | MaxVIA: 380-415 VAC, 40 A, 3-Phase WYE+ Ground; 50/60 Hz |
| | | MaxVIA-Plus: 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% |
| | Purge Gas Pressure | 1.03 bar (15 psig) min. to 1.7 bar (25 psig) max., regulated |
| | Pneumatic Valve 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 |
| | Exhaust Fitting | NW 40 @ Utility Panel |
| Compliance | USA | EH&S/Ergonomics |
| | International | CE Marked |
| Ancillary Equipment | Gas Generators | Nitrogen (requires Additional Non-Optional Hardware) |
| | Facilities | MaxVIA-Plus: Chiller |

MaxVIA and MaxVIA-Plus

System Packages

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 MaxVIA and MaxVIA-Plus offer industry-leading throughput and reliability for printed circuit board assembly applications, designed to last and provide cutting-edge capabilities continuing a time-honored tradition.

Explore the MaxVIA and MaxVIA-Plus system packages. Continue to see how we support the future.

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

| | | |
|--------------|--------------------------------|---|
| Essential | Uniformity and repeatability. | These essential 40 kHz plasma treatment systems deliver high process repeatability and uniformity and accommodate all common gases, including CF ₄ , oxygen, nitrogen, and argon. |
| Productivity | Advanced throughput and yield. | 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, and temperature management technologies enhance optimal performance. |

For more information, visit our website to find your local regional office or representative.

We have several global locations to serve you.

North America
Asia Pacific
EMEA

www.nordson.com/electronics
info-electronics@nordson.com

North America Headquarters
2747 Loker Avenue West
Carlsbad, CA 92010-6603, USA

+1.760.431.1919

April 2023

