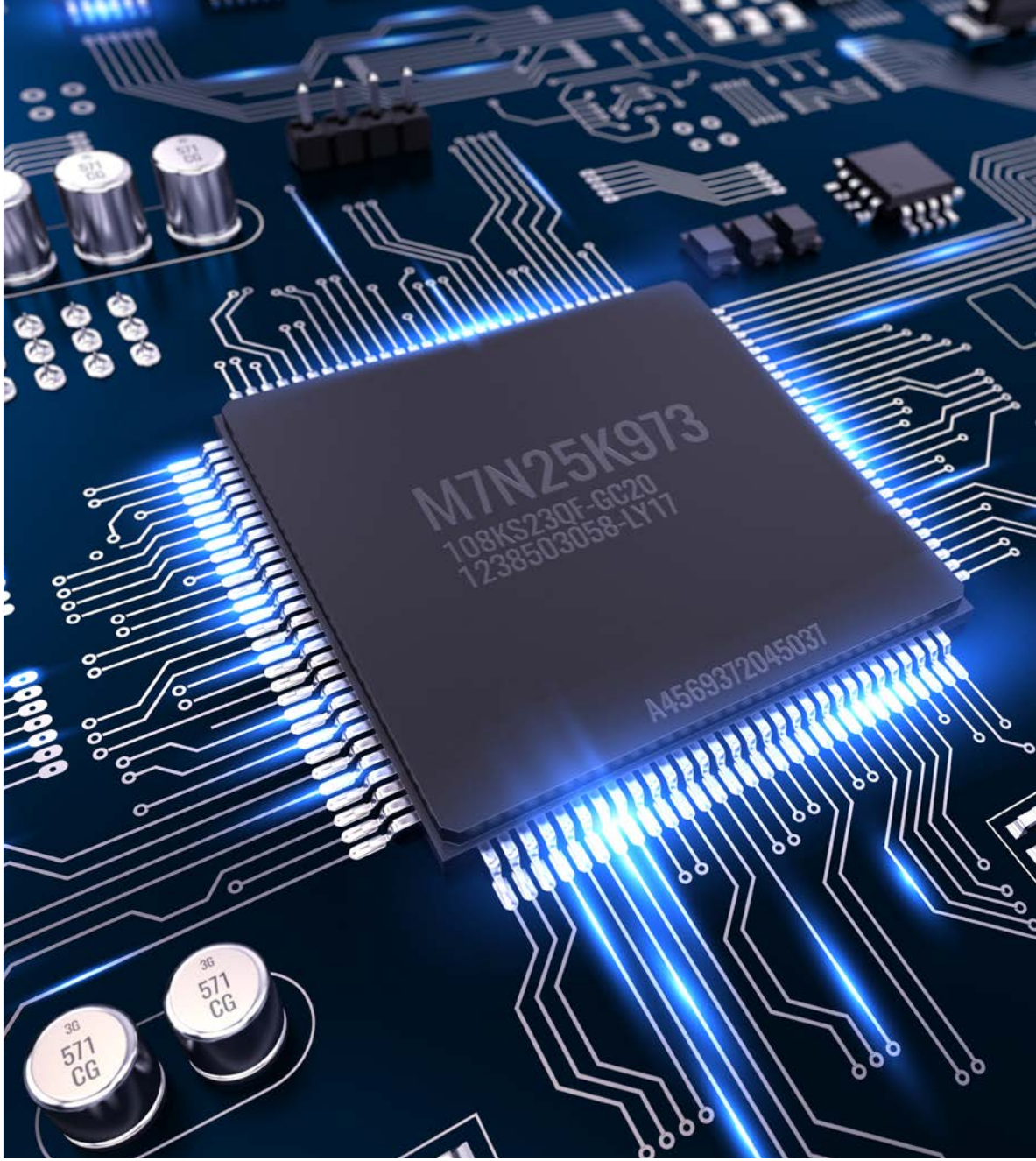
ADVANCED ESD PROTECT™

ELECTROSTATIC CONTROL SOLUTIONS

General Electronics,
PCB Assembly,
Product Inspection & Test



SIMCO ION™
An ITW Company

Simco-Ion, Technology Group, a Worldwide Leader in Advanced Ionization and Monitoring Solutions for Ultra-clean and ESD Control applications, is renowned for...

QUALITY. PERFORMANCE. RELIABILITY.

Simco-Ion, Technology Group provides **ADVANCED ESD PROTECTION** industry-leading clean ionization and monitoring solutions tailored for high-end electronic assembly, inspection, and testing applications. Our extensive portfolio includes bars, blowers, guns/nozzles, instrumentation, and continuous monitoring systems—offering comprehensive coverage at every stage of the process with a strong emphasis on cost efficiency.

Our ESD ionization products are designed to meet and exceed customer expectations for form factor and performance, incorporating advanced features such as Novx closed-loop feedback control and seamless FMS/tool interface integration. With Simco-Ion, Technology Group, you can count on reliable, efficient, and cutting-edge ESD protection.

STATIC CHARGE

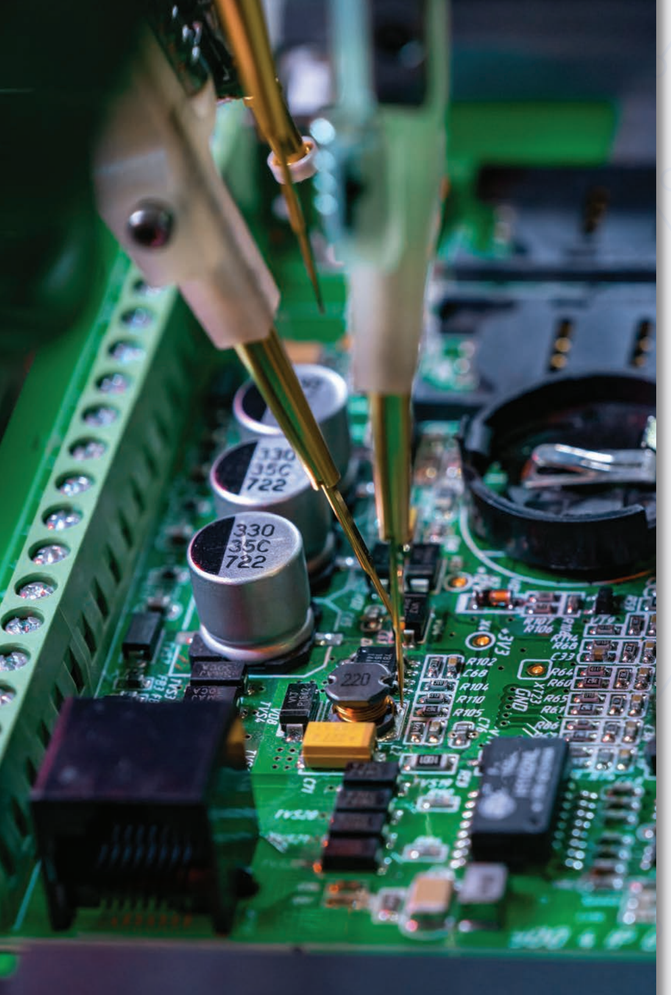
in General Electronic Assembly Manufacturing

Static charge, generated throughout the electronic assembly manufacturing process, primarily arises from the contact and separation of dissimilar materials. This static charge can significantly affect productivity and yield in several ways:

Electrostatic Attraction (ESA): Static charge electrostatically attracts particles from the air causing potential yield loss on wafers and reticles.

Electrostatic Discharge (ESD): Electrostatic discharge (ESD) causes instant or latent defects on reticles, wafers, or packaged chips.

Electromagnetic Interference (EMI): The electromagnetic interference (EMI) generated by electrostatic discharges can trigger microprocessor lockup and robotic malfunctions that lead to product flow interruptions and costly tool downtime.



ESSENTIAL REQUIREMENTS

For Today's General Electronic Manufacturing Industries

Advanced ESD Protection

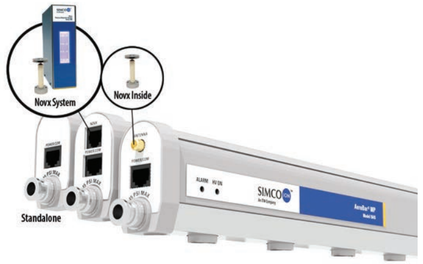
Electrostatic discharge (ESD) remains a critical challenge for electronics manufacturers. Leveraging advanced ionization solutions enhanced with the Novx Advantage enables simultaneous detection, measurement, recording, and monitoring capabilities—meeting Industry 4.0 standards. These solutions offer a competitive edge by preventing both instant and latent product failures, minimizing yield loss, and ensuring consistently high-quality products.

Voltage Control

Increasingly stringent voltage control requirements are helping to eliminate or significantly reduce ESD incidents. By maintaining tighter voltage limits, manufacturers can protect components from the defects that occur when they are mounted on printed circuit boards. To guard against latent failures, the general electronics assembly and test industries are progressing toward ultra-low voltage thresholds, such as 35V and below.

Monitoring

The Novx Complete Electrostatic Control Management System incorporates closed-loop feedback and control, aligning with Industry 4.0 demands. This advanced monitoring capability supports traceability, compliance, process management, proactive notifications, and more—ensuring a robust approach to electrostatic control and continuous process improvement.



ADVANCED IONIZING BAR

Modulated Pulse Technology with Active Feedback and Control

Achieve industry-leading ionization performance with unmatched ±5V balance precision.

Exceptional Performance

- Industry-leading offset voltage performance with ±5V balance.
- Real-time monitoring and feedback control using Novx technology.
- Low swing voltage ensures safe placement as close as 150 mm from wafers or reticles.

Convenient Software Control

- User-friendly interface for easy setup and adjustments.
- Centralized power control with full remote management via PC.

Design Options

- Choose from 3 versions and 14 different lengths to fit your specific application.

INDUSTRY 4.0 REQUIREMENTS

Smart Manufacturing with Novx Advantage

The Novx Electrostatic Control Management System is a comprehensive solution designed to meet Industry 4.0 requirements. It detects, measures, records, and monitors electrostatic voltage, ensuring compliance and enhancing manufacturing efficiency.

Compliance | Data Management
Traceability | Process Management
Monitoring | Advance Notifications

The Novx Advantage also integrates advanced sensors with closed-loop feedback to maintain ionizer balance and conduct automatic decay testing—delivering unparalleled control and assurance in today's smart manufacturing environments.

ENHANCED OVERHEAD BLOWER

Multi-Fan with Advanced Feedback and Control

Experience industry-leading electrostatic performance with a choice of 2-, 3-, or 4-fan configurations. Equipped with a 24 VDC input and an integrated Auto-Clean system in each fan, this overhead blower helps minimize maintenance time and costs while delivering exceptional ±1V balance precision.

Unmatched Performance

- <±1V balance capability with Novx monitoring.
- Superior offset voltage and feedback control for optimal efficiency.

Superior Design Options

- Standalone: Ideal for straightforward, reliable ionization.
- Novx Inside: Incorporates passive sensors to monitor offset voltage.
- Novx System: Adds active sensors for decay time testing, ensuring peak performance and compliance.

STATIC CHARGE **PROTECTION**

Ionization for Every Process

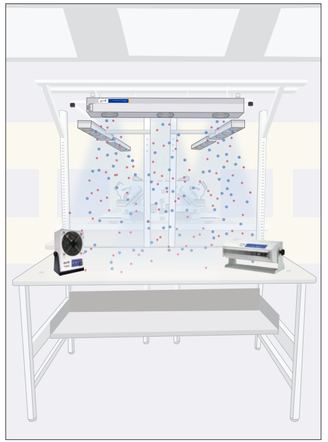
Our extensive portfolio of static charge control solutions maintains the integrity of components, sub-assemblies, and finished products by neutralizing static charge generated during manufacturing or transport to final test and rework.

Comprehensive Range of Ionization Solutions

Simco-Ion, Technology Group offers a versatile lineup of high-performance ionizing products designed to address the diverse needs of electronics assembly manufacturing. Whether you're working on benchtop operations, extended coverage applications, or overhead setups, our solutions provide the reliability and precision required to maintain optimal electrostatic control.

Benchtop, Extended Coverage, and Overhead Blowers

Choose from a variety of blower designs and sizes, each equipped with advanced features and performance levels to ensure ideal electrostatic management. These solutions are tailored to your facility's specific requirements, helping to minimize costs while maximizing protection for ESD-sensitive environments.



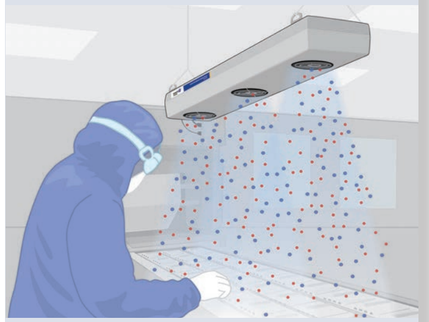
Achieving Competitive Advantage Through ESD Control

In today's fast-paced electronics industry, effective electrostatic control is crucial. By improving product quality, reducing yield loss, and ensuring compliance with stringent manufacturing standards. Our ionization solutions help you stay ahead in the competitive marketplace.

Typical general electronics applications where ionization solutions are essential in improving productivity:

Electronics Assembly Manufacturing

- PCB (Hard/Flexible) Fab
- Solder Paste Application
- SMT Component Placement
  - Tape/Reel construction & operation
  - Tray loading/unloading
- Reflow Soldering
- Inspection & Testing
  - Microscope Stage
  - Test Fixture/Socket
- Through-Hole Component Insertion
- Wave Soldering
- Conformal Coating
- Final Connection & Enclosure Assembly
  - Air Blow-off operation
- Burn-In
- Quality Control
- Packaging

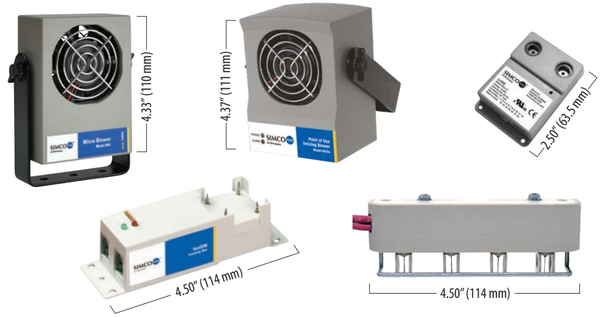


POINT-OF-USE IONIZERS

Focused coverage ionization products are especially effective for electronic manufacturing applications, from point-of-use compact blowers for targeting hard-to-reach areas to lightweight, ergonomic design blow-off guns. With a balance of ±15V, high blow-off force provides powerful cleaning and maximum static charge decay. Other products include air nozzles with flexible positioning mounts and hand-free options, air cartridges, measuring instruments like fieldmeters, and charge plate monitors.

MICRO SIZE IONIZERS

Micro Series ionizers are designed explicitly for those small-footprint requirements or difficult-to-access application areas.



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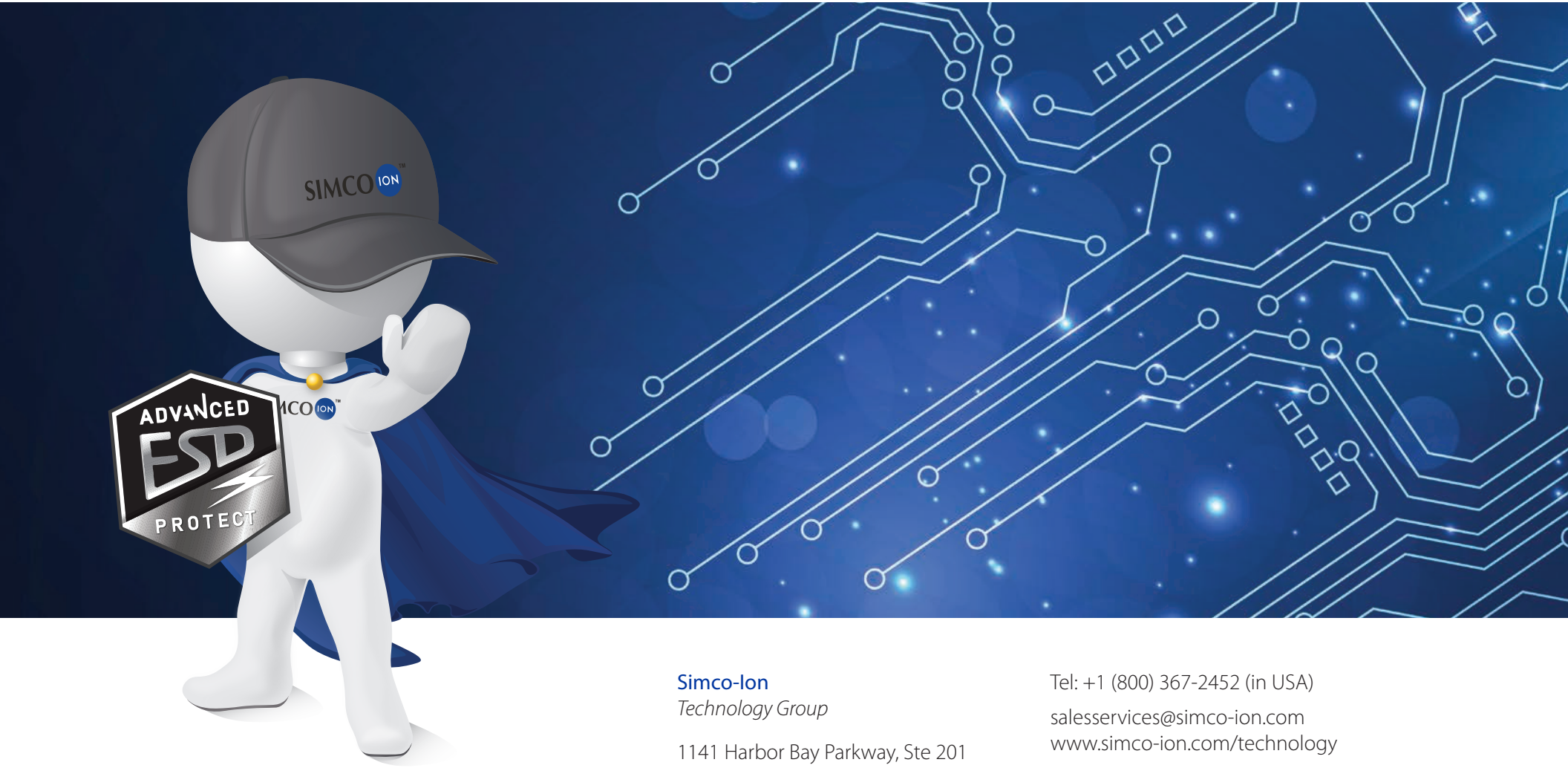

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