



New Product Introductions and Much More

Product Launch 2020

Managing Electrostatic Problems

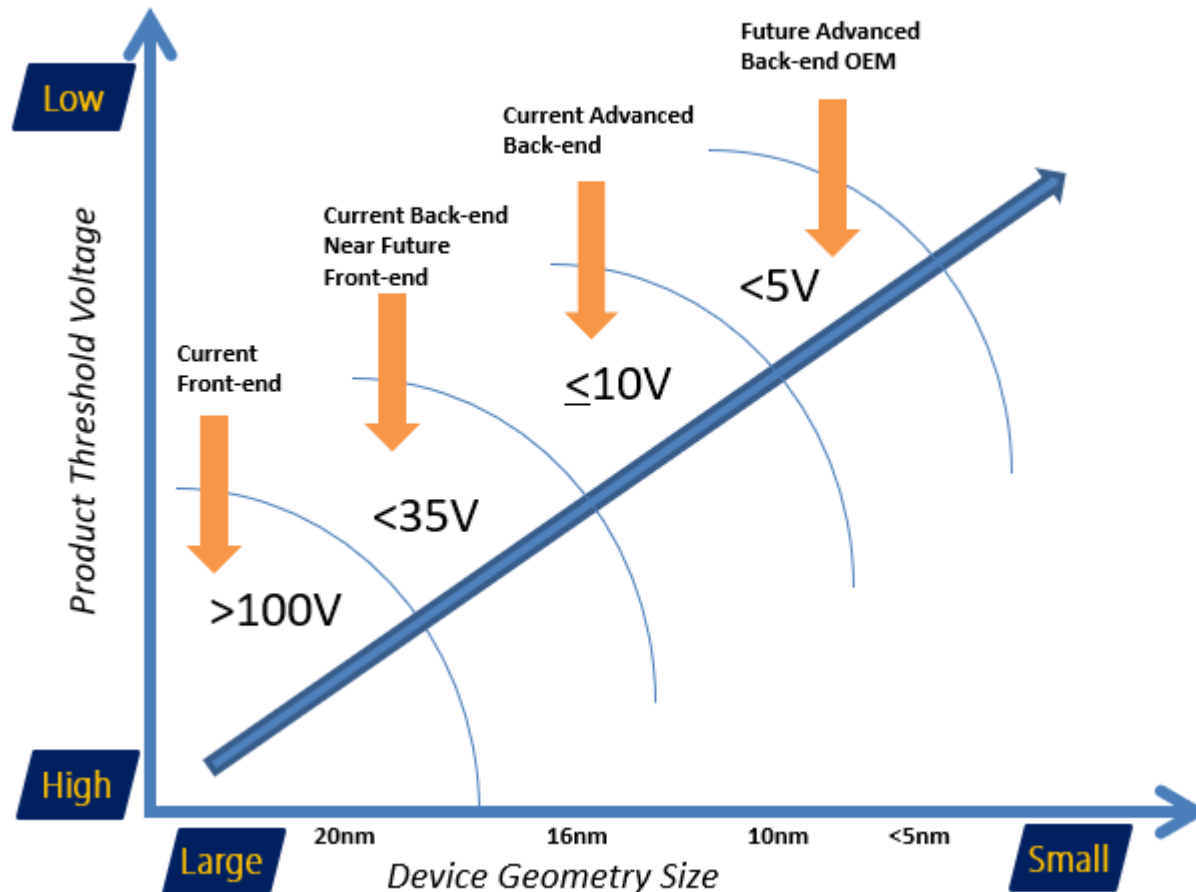
Simco-Ion is recognized as the global leader in controlling electrostatic discharge (ESD) and electrostatic attraction (ESA) through advanced air ionization and monitoring technologies.

Today we will focus on:

- Introducing new products from the Simco-Ion Technology Group
- Solutions to address Industry 4.0 traceability requirements and new manufacturing processes
- Innovative designs to automate, increase ease of use, performance accuracy and long-term reliability

SEMI Technology Roadmap

Driving Ionization Front-end & Back-end Requirements



Simco-Ion Technology Products - always ready with the next generation of ionization tools to meet the challenges ahead

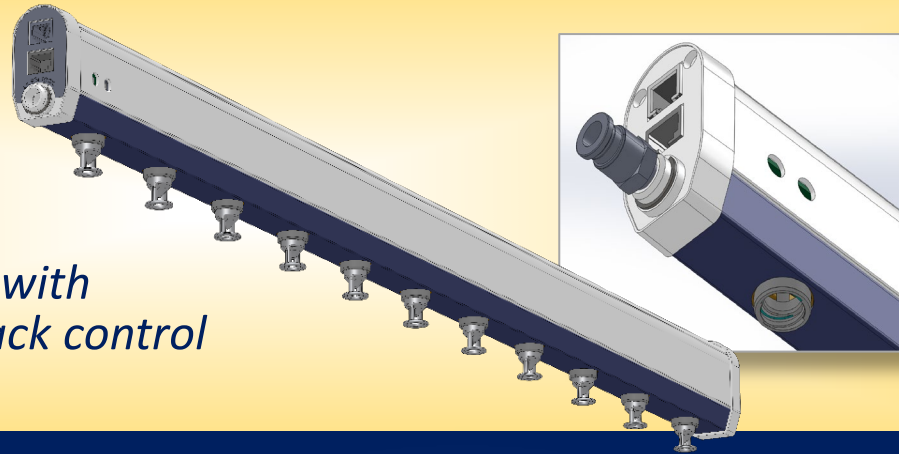
2016	2017	2018	2019	2020
16/14 nm				
	10 nm			
		7 nm	7 nm	7 nm
				5 nm

Reference: "Tech-Insights road map"

EXCITING New Simco-Ion Products

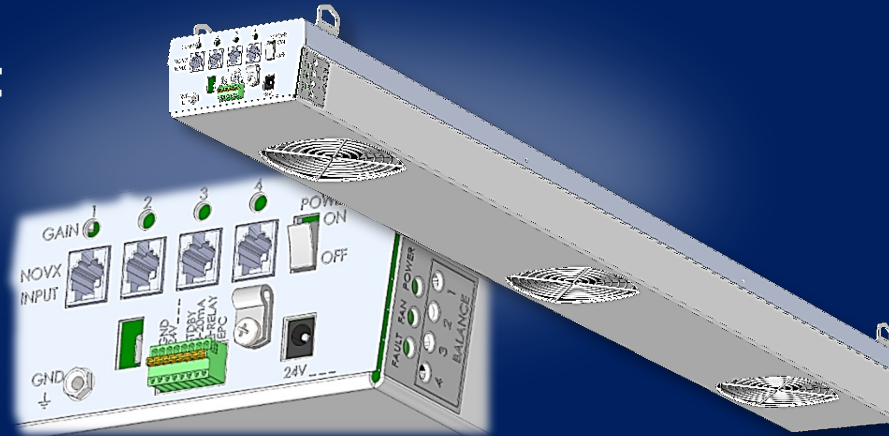
5V Bar Model 5645

*The latest ionization tool with
offset voltage and feedback control*



Critical Environment Overhead Blower Model 5842

*Enhanced with the Novx Advantage,
ability to simultaneously detect,
measure, record & monitor*



Model 5645 5V Bar

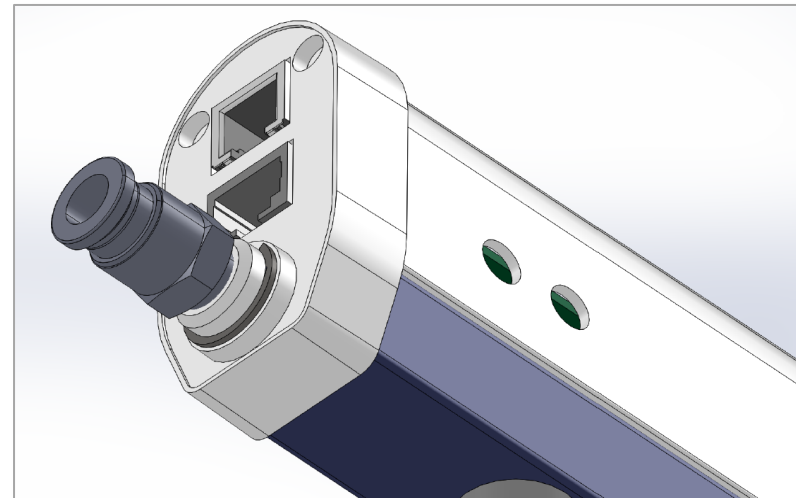
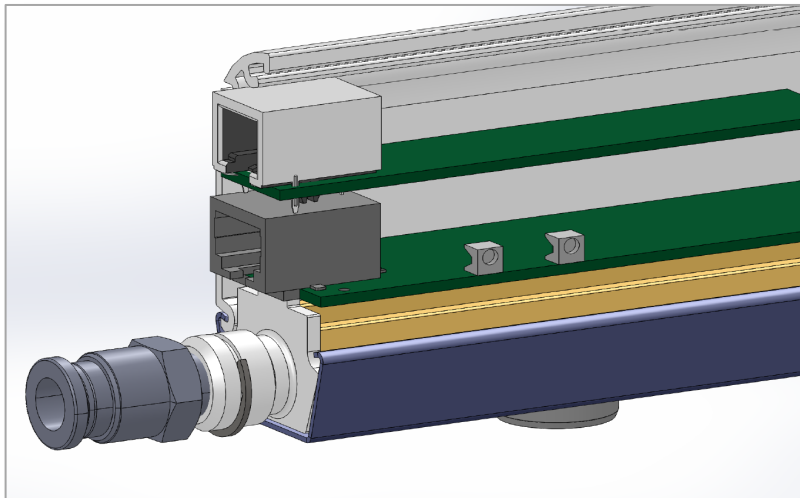
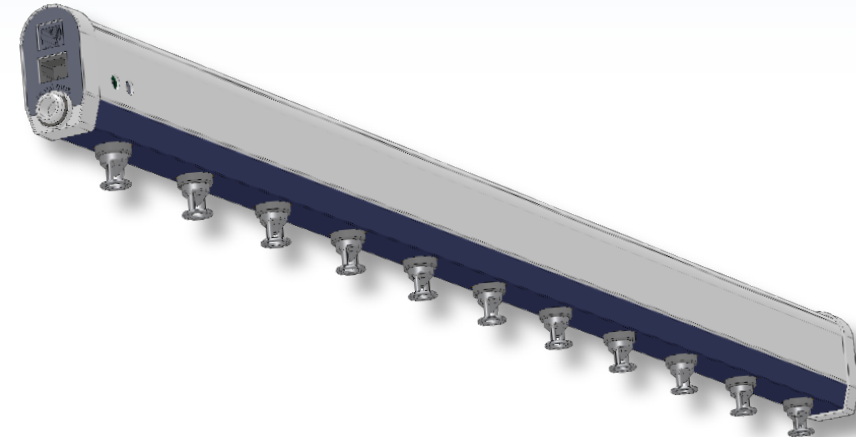
5V Bar with Active Feedback/Control

Modulated Pulse (MP) Technology

Novx Feedback/Control or
Novx-Inside Antenna Assembly

Fast Emitter Point Cleaning Method

350mm to 2350mm Bar Lengths



Model 5645 5V Bar

5V Bar with Active Feedback/Control

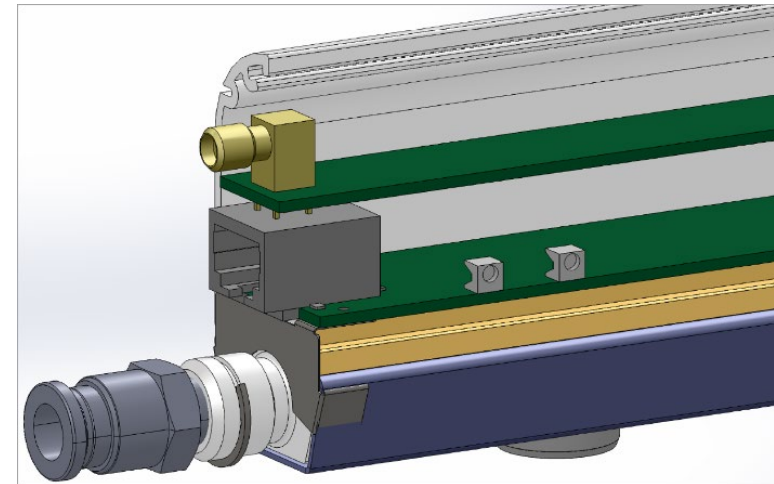
Features

- Ion delivery with CDA
- Balance:
Stand alone version: $\pm 10V$ or better
 $\pm 5V$ with Novx closed-loop feedback
- Meets ISO 14644-1
Class 1 with SCSi emitter
Class 3 with Titanium emitter
- Available in 14 lengths (daisy-chainable)
from 350mm – 2350mm
- 24VDC
- FMS alarm output tool control,
- Software for centralize power and control

Applications

Semiconductor front-end and back-end manufacturing.

Model 5645 designed with industry-leading offset voltage performance and capabilities; better than $\pm 10V$ and $\pm 5V$ or better with Novx closed-loop feedback.



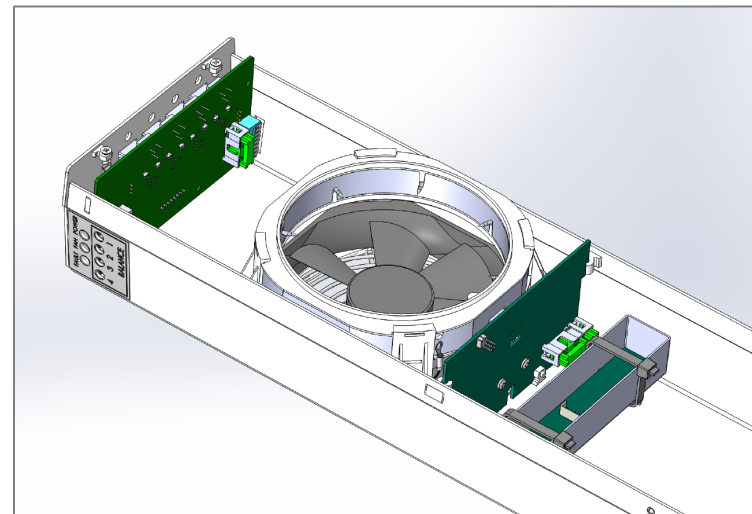
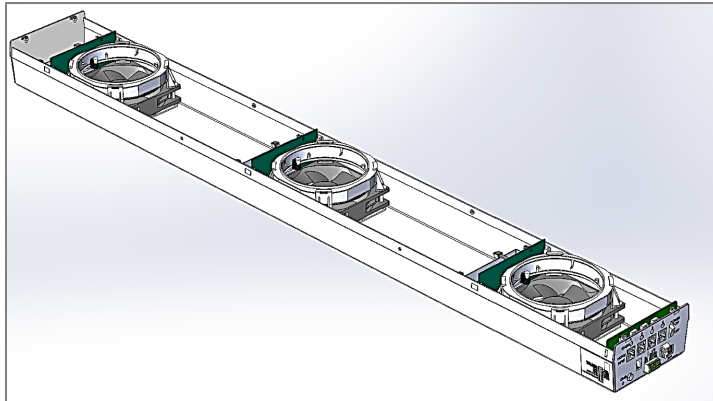
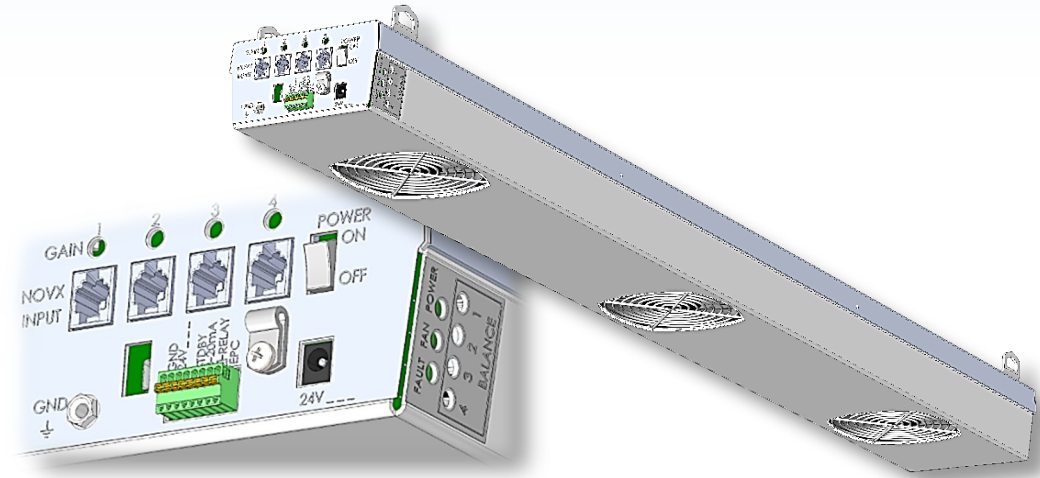
Model 5842 Multi-fan Critical Environment Overhead Blower

Novx Feedback/Control or
Novx-Inside Antenna Assembly

$\pm 3V$ or better balance ($\pm 1V$ with the optional
external feedback/control system)

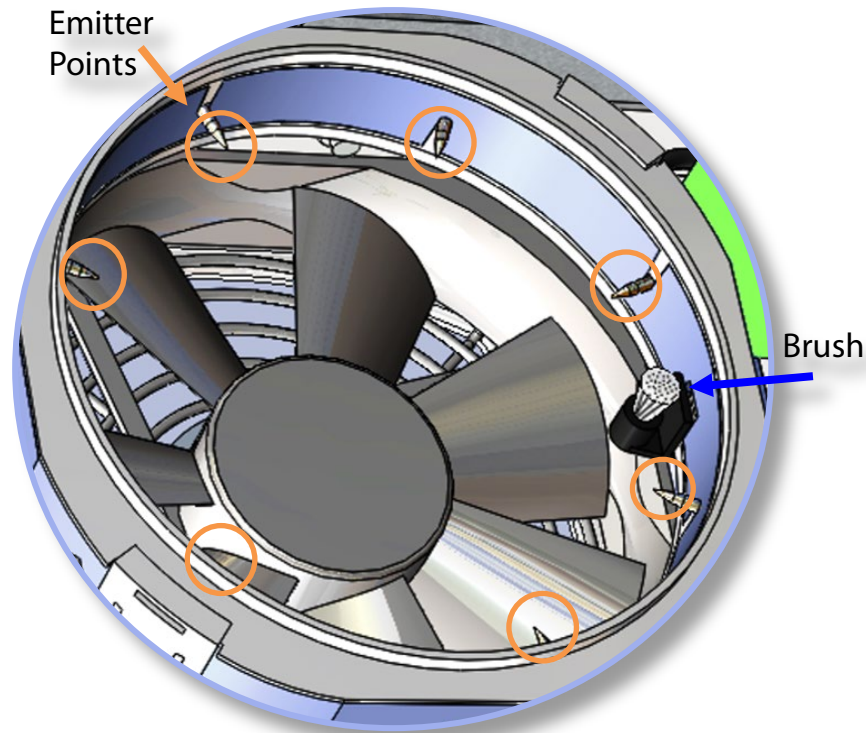
FMS Interface for Tool Control

Available in
2, 3 or 4-fan construction



Model 5842 Auto-Clean System

Automates emitter point cleaning,
reducing maintenance costs & time



Auto-clean ON | Blower ON

- All fans auto sweep emitter points in **both directions** every 7 days – cleaning cycle ~10 secs when selected

On Standby

- Will suspend 7-day countdown and continue when standby mode is off

Novx Input Option

- When Novx signals a balance alarm & the output on the instrument is enabled, the 5842 will activate the emitter point cleaner. Feature only activate once every 24 hrs. to avoid multiple cleaning
- User can also schedule cleaning cycle via the tool

Manual Mode

- Use the I/O terminal block on the back of the blower for FMS output only



**More Advanced Ionization Tools
Recently Introduced**



Extreme Temperature Ionization System

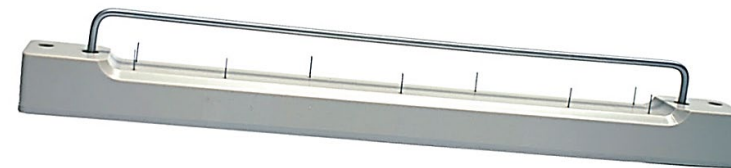
Model 4612

- Guaranteed $< \pm 10V$ balance in extreme environments from -50°C to $+150^{\circ}\text{C}$
- Eliminates static charge in extreme environments that cannot sustain any other static elimination method
- Self-balancing ionization eliminates calibration in the tight confines of the test chamber
- Ensures that balance is maintained at the target with a remote antenna and active feedback/control, not just at the ionizer itself

Applications

Semiconductor front-end and back-end manufacturing.

Designed to withstand extreme temperature environments such as environmental /burn-in chambers.



precision ionizer



antenna



controller

Extreme Temperature 4612 Ionization System

Precision ionizer
(Available in 2 sizes)
Model 4612-210
Model 4612-526



Antenna
Model 550
Passive Antenna



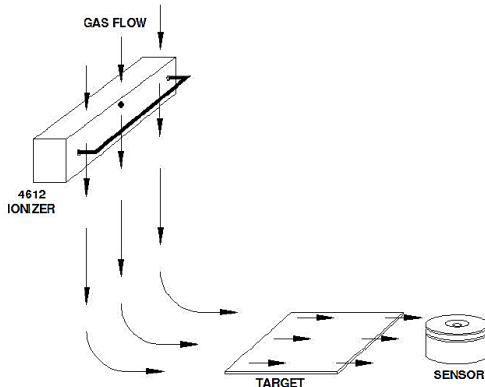
Controller
Model 4062e

Application:

Semiconductor front-end and back-end manufacturing. Designed to withstand extreme temperature environments such as environmental / burn-in chambers.

Unique Features & Benefits:

- Guaranteed $< \pm 10V$ balance in extreme environments from $-50^{\circ}C$ to $+150^{\circ}C$
- Eliminates static charge in extreme environments that cannot sustain any other static elimination method
- Self-balancing ionization eliminates calibration in the tight confines of the test chamber
- Ensures that balance is maintained at the target with a remote antenna and active feedback/control, not just at the ionizer itself

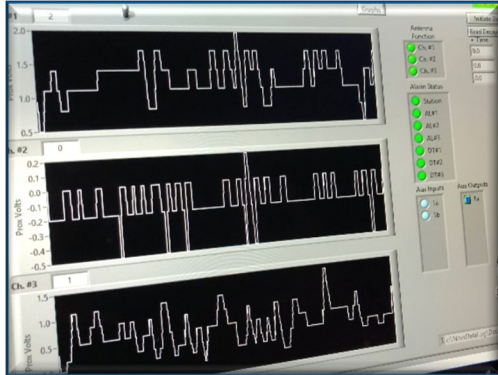


Balance Control & Decay Test Option

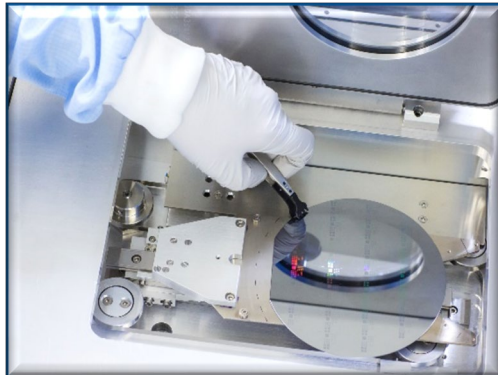
Standard Novx 3362 with its antennas can replace the 550 Antenna to monitor and control the extreme temperature. Using the 3362 with feedback control kit will allow active feedback and control.



Novx 3352 & 3362 ESD Detection Monitors



Proprietary Calibrator Reader Program for Real-Time Measurements



Semiconductor Manufacturing



Application: Detects electrostatic discharge (ESD) events in semiconductor, flat panel and electronics manufacturing processes and monitors and controls the static eliminators installed in the processes.

Unique Features & Benefits:

- Proprietary “filtering” technology directs focus to the source of the discharge
- 3 channel design enables multiple ESD detection antennas
- Digital input so users can set specific ESD detection thresholds
- Provides an Industry 4.0 solution to monitor, analyze, and control ionization while providing production traceability and control

In-Line Nitrogen Ionizers

Model 4210 CDA or N₂ Ionization

- Cleanliness rated to ISO Class 3
- Balance $\pm 25V$
- Fast Discharge Times
(depends on flowrate and distance)
- IsoStat Technology



Model 4214 Ultra-clean N₂ Ionization

- Cleanliness rated to ISO Class 1
- Balance better than $\pm 25V$
- Fast Discharge Times
(depends on flowrate and distance)
- AC Technology



Applications: provide an ionized gas output in drying and chemically harsh environments in semi front-end manufacturing.



Thank You for Visiting Us!

