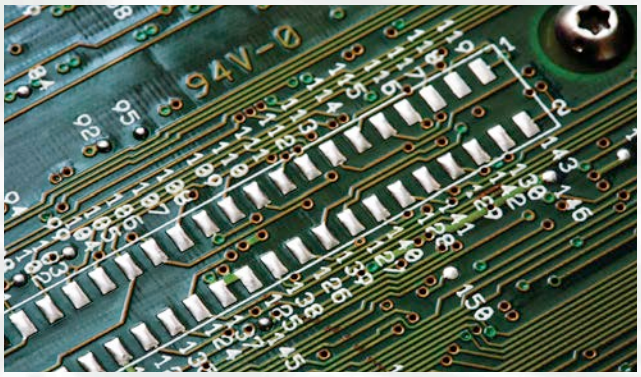
SCS IONOGRAPH® SERIES

SCS
SPECIALTY COATING SYSTEMS™
A KISCO Company

SCS IONOGRAPH® SERIES

Specialty Coating Systems' name is synonymous in the industry with automated ROSE (Resistivity of Solvent Extract) testing systems. SCS Ionograph® ionic contamination test systems utilize the dynamic extraction method to measure resistivity change when a substrate is submerged in ultra-pure test solution. The degree of change in resistivity indicates the level of contamination, which is often the result of residues from fabrication and board assembly processes.



It is important that during the manufacture of raw circuit boards, ionic testing is performed at different points during the board-building process.

SCS offers a full range of capacity and control to meet the needs of any lab or manufacturer. Designed for fast and accurate ionic contamination cleanliness testing, SCS Ionographs:

- Determine the cleanliness of electronic components, assemblies with SMT devices, and bare and assembled printed circuit boards.
- Provide an accurate, repeatable and rapid method for determining cleanliness.
- Provide immediate process control results, negating the need for outside laboratory testing.
- Verify proper cleanliness of surfaces prior to the application of conformal coatings or potting compounds.
- Comply with industrial specifications such as ANSI/J-STD-001 and IPC-TM-650 (ROSE), and are specifically named in MIL-STD-2000A and MIL-P-28809A.

SCS IONOGRAPH SMD V

The Ionograph SMD V is a floor unit commonly used for larger circuit boards in high-volume production environments. Submerged agitation jets and optional heated extract solution provide outstanding sensitivity, operational efficiency and the ability to test ultra-fine pitch components with ease and accuracy.

The Ionograph SMD V offers users the ability to test components with a heated or non-heated test solution. IPC-TM-650 describes the benefit of a heated solution to "accelerate and improve the efficiency of extraction of ionic material from poorly accessible regions, such as under surface mounted components." In addition to increasing cleaning efficiency, a heated system also ensures temperature consistency of the test solution, whereas solution temperature in an unheated system can vary due to circulation pump friction created during the testing process. The CE-certified Ionograph SMD V is available with a convenient, onboard all-in-one computer or tablet, providing efficient control and monitoring of the test system using Windows®-based PowerView™ software. The system features easy-access door panels for the routine maintenance of consumable components (e.g., DI columns and pump filter).

Ionograph SMD V

Internal view of Ionograph SMD V

SCS IONOGRAPH BT SERIES

SCS also offers convenient benchtop Ionographs for the quick and accurate testing of individual parts, complete assemblies or small devices. The units enable users to match the test cell size with common substrate sizes to provide enhanced testing accuracy and speed.

Ionograph BT models are available in multiple test cell sizes, including:

- Small Parts (SP): 6 x 6 x 1.125 in
- Medium Parts (MP): 14 x 12 x 2.5 in
- Large Parts (LP): 14 x 20 x 2.5 in

BT Series Ionographs, operated by Windows-based PowerView software, are available with an all-in-one computer or tablet for maximum convenience and efficiency. The CE-certified systems feature easy-access door panels for the routine maintenance of consumable components (e.g., DI columns and pump filter) and their full stainless steel structure is durable for easy cleaning and corrosion resistance. For enhanced safety, electronic components are isolated in a separate, remote control module.

Internal view of Ionograph BT SP

Ionograph BT SP and control module

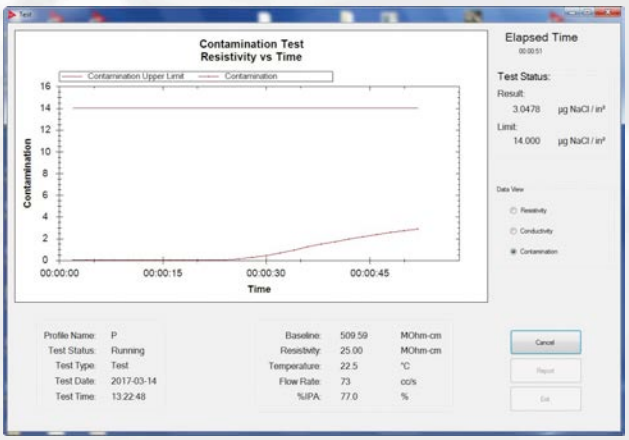
Ionograph BT MP

Ionograph BT LP

POWERVIEW SOFTWARE

Ionographs are controlled by proprietary PowerView software, which is specifically designed for the programming and operation of SCS ionic contamination test equipment. Users can create, save and run unlimited test profiles, and collected data can be archived, exported and analyzed.

The Windows-based program establishes contamination testing parameters and calibrates equipment for consistent, repeatable and accurate measurements. Data is transmitted to the controlling computer for export, reporting and comparison, providing unparalleled ease of analysis and flexibility in creating data charts and tables.



POWERVIEW FEATURES

- Enhanced 32 or 64-bit user interface
- Test solution concentration calculations
- Robust reporting of test results
- Enhanced, interactive graphical summaries
- Increased data filter capabilities
- Built-in profile system
- Simplified database export capabilities
- Multi-level password protection for added security
- Operates on multiple Windows platforms
- Network connectivity for remote access/archiving
- PDF test results for ease of dissemination
- Supports barcode reader

SCS IONOGRAPH SERIES SPECIFICATIONS

Characteristic	SMD V	BT Series: Small Parts	BT Series: Medium Parts	BT Series: Large Parts
Test Cell Size (W x H x D)	18 x 20 x 5* in / 45.7 x 50.8 x 12.7 cm 26 x 20 x 5* in / 66 x 50.8 x 12.7 cm 30 x 26 x 5* in / 76.2 x 66 x 12.7 cm 38 x 26 x 3.5 in / 96.5 x 66 x 8.9 cm	6 x 6 x 1.125 in / 15.2 x 15.2 x 2.9 cm	14 x 12 x 2.5 in / 35.6 x 30.5 x 6.4 cm	14 x 20 x 2.5 in / 35.6 x 50.8 x 6.4 cm
Estimated Solution Capacity	6.5 - 15 gal / 24.6 - 56.8 L	0.4 gal / 1.5 L	2.6 gal / 10 L	4 gal / 15 L
Dimensions (W x H x D)	43.5 x 39.1 x 26.7 in / 110.5 x 99.3 x 67.8 cm	11 x 20.75 x 15 in / 27.9 x 52.7 x 38.1 cm	15.25 x 19.75 x 15 in / 38.7 x 50.2 x 38.1 cm	15.25 x 27 x 16.25 in / 38.7 x 68.6 x 41.3 cm
Weight	382 lb / 173 kg	46 lb / 20.9 kg	64 lb / 29 kg	78 lb / 35.4 kg
Power Requirements	120 VAC, 60 Hz, 10 A / 230 VAC, 50 Hz, 5 A	120 VAC, 60 Hz, 1 A / 230 VAC, 50 Hz, 0.5 A	120 VAC, 60 Hz, 1 A / 230 VAC, 50 Hz, 0.5 A	120 VAC, 60 Hz, 1 A / 230 VAC, 50 Hz, 0.5 A
Maximum Operating Temp.**	113° F / 45° C	—	—	—

*Test cell tapers from 5-in/12.7-cm at top to 3.1-in/7.9-cm at bottom.
**Only applicable with optional heater

INNOVATIVE SOLUTIONS FOR ADVANCED TECHNOLOGIES.

With over 45 years of experience and locations around the world, Specialty Coating Systems is the global leader in Parylene conformal coatings and technologies. This extensive coating and application experience is leveraged on each and every customer project, including the industry-leading systems that SCS designs and manufactures. From conformal coating, dispensing and cure systems to ionic contamination test systems, SCS equipment is used in environments that range from university and research labs to high-volume production facilities. SCS' proactive approach to production and quality requirements—testing, validating, documenting and processing—enables customers and their advanced technologies to meet the most challenging industry specifications and quality requirements.

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