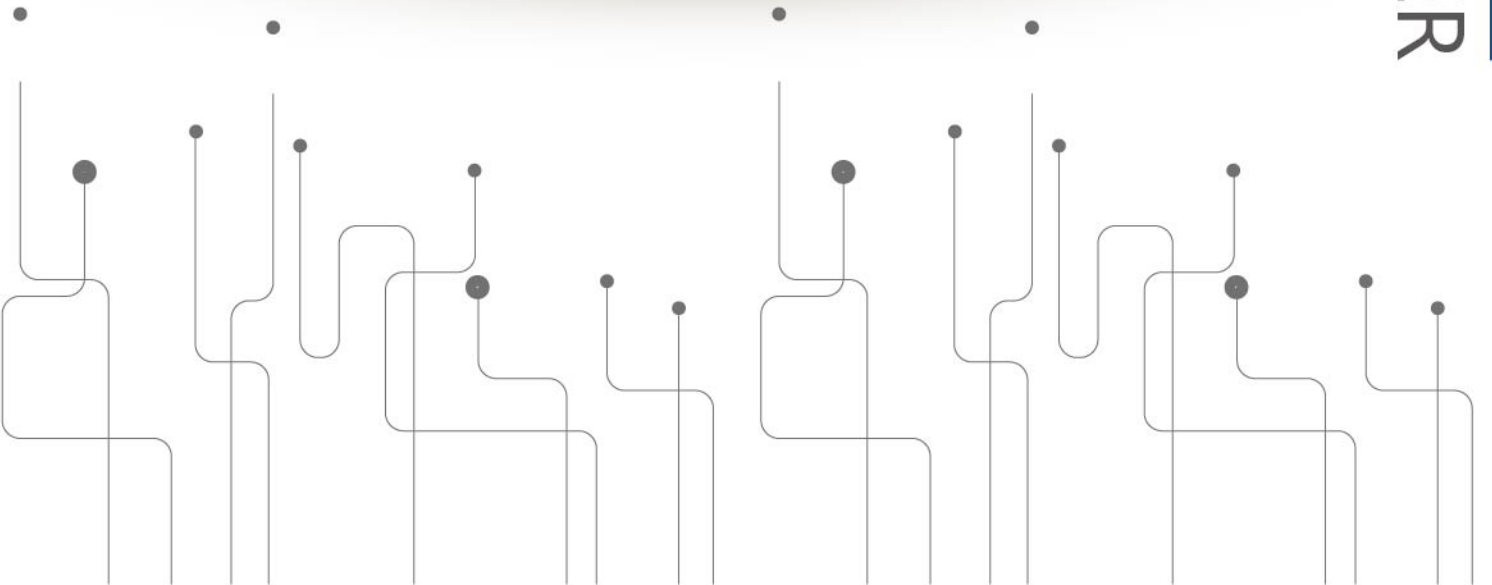




NEO CLEANLINESS TESTER



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Electronics manufacturing

Electronic manufacturing industry uses a large number of raw materials with different characteristics, and how to control the cleanliness of materials is a problem that engineers have to face and solve. All these are caused by the residues of harmful substances on the circuit board. It is found that these harmful substances can be roughly classified into ionic type and non-ionic type. Ionic pollutants refer to the substances that under certain temperature and humidity will dissolve into positive or negative charged particles which can further form conductive solutions. Non ionic pollutants refer to the residual organic matter on the surface of PCB. Many of the raw materials used in production may be potential factors for product failure. With the rapid development of electronic manufacturing industry, such as the introduction of lead-free process, miniaturization and integration of components, we are aware of the importance of monitoring product cleanliness, because it can help us find defects in the process and is an effective tool to solve problems.



THE IMPORTANCE OF PCB CLEANLINESS



If the surface of PCB is contaminated by conductive materials, manufacturers will face a series of potential problems. Under the action of humid environment, the resistance between the solder pad and the wire will be reduced, resulting in corrosion. So far, solvent based cleaning is becoming more and more unpopular in the electronic manufacturing industry, and more and more users turn to water washing, that is, water-soluble or no cleaning process. However, the introduction of new processes always faces a series of challenges. At present, ion migration and corrosion are the on-site problems to be solved by users. These problems are directly or indirectly related to the manufacturing residues (e.g. type, degree, reaction state). Our understanding of these problems and the solution of these problems can be achieved by investigating the causes of product failure, identifying and monitoring all production process problems, and these processes are inseparable from the help of ion pollution testing equipment.



What is an ionic contamination tester?

It can help end users to better control and effectively analyze the cleanliness of final products. Our software provides a series of powerful analysis and chart functions to ensure that product processes are always monitored. Intuitionistic chart and data can help you to get access to the process problems quickly.

- High precision ionic contamination tester
- Quantitative electrochemical migration
- Compatible with dynamic and static testing



How clean is clean

We use advanced sensors to measure the total amount of contaminants dissolved on the surface of the board in the solvent to obtain ionic contamination data. As early as 1970 in the United States, the U.S. military clearly defined the PCB pollution standard. The value specified in the standard, which we are still quoting, is $10 \mu\text{g NaCl} / \text{square inch}$ or $1.56 \mu\text{g NaCl} / \text{square centimeter}$. Cleanliness testing is now routinely tested in many circuit board manufacturing and circuit board assembly plants. Users can expect long-term effectiveness and reliability from the final product through such a testing.

In order to ensure the best cleanliness, many countries put forward a series of standards and specifications. The ever-increasing requirements of technical standards, increasingly complex production processes, and the unimaginable geographical environment in the global commodity circulation lead to more stringent requirements for the cleanliness of manufacturers' products. Operational errors, such as electrochemical migration and three proofing coatings, or improper design of other processes, are potential causes of these problems.

STANDARDS FOR NEO CLEANLINESS TESTER



Neo Cleanliness Tester meets the following standards

- J-STD-001D: Requirements for soldering and electronic components
- IPC-TM-650: Experimental Method Manual which lists various methods for testing the surface ion contamination of circuit boards
- IPC-A-610F: PCB assembly acceptance conditions

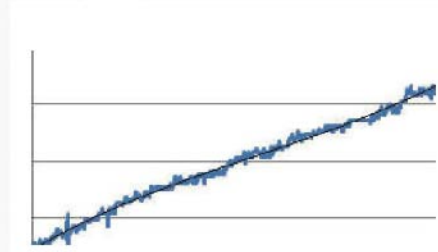
Neo Cleanliness Tester uses advanced analytical techniques to analyze and monitor various manufacturing processes, including semiconductors, PCB and PCB assembly processes in the field of electronic component manufacturing. It is equipped with the most advanced analysis software, Contamination Explorer®, which helps users to test, observe results, and finally analyze and export summary reports. The hardware uses a powerful circulation and filtration system, which can ensure the purity of the test solvent, and then ensure the effectiveness and accuracy of the final results. At the same time, our advanced manufacturing technology also makes the products free from maintenance. The optimized containment Explorer® software can easily export the final test results to word or PDF format, which is convenient for you to share inside or outside the company, and help you realize the first index of cleaning process. This technology is the first to appear in industry.



Dynamic or static

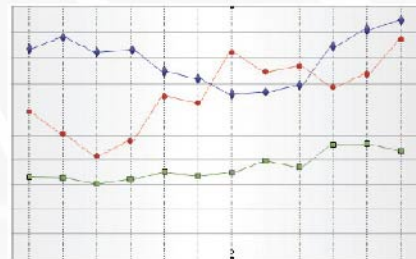
Starting from the application of ionic contamination tester, the choice of dynamic or static testing methods becomes a problem that every user must face. Each method has its own advantages and defects that cannot be avoided. In order to solve this problem, our company independently developed and designed a patented product,

Neo Cleanliness Tester, which can adopt two testing methods at the same time. It gives users the maximum flexibility of compatible standards from now on, because IPC recognizes both dynamic and static testing. This is even more important for contract manufacturers, because they are always faced with different requirements from different customers, and this technology enables them to avoid the possibility of standard disputes to purchase additional machines.



Statistical Process Management (SPC)

Contamination Explorer also has powerful analytical statistics that help users better control and effectively analyse the cleanliness of the final product. Our software provides a series of powerful analysis and chart functions to ensure that product processes are always monitored. Intuitionistic chart and data can help you to get access to the process problems quickly.



The powerful statistical function of the software enables you to easily observe the whole process and all deviations. The software can collect many sample data in the cleaning process to show process trend, so as to ensure the long-term reliability of product quality. At the same time, the software can monitor some potential problems that affect the product quality, and help users find and correct them in time. Software statistical analysis function can help users find and prevent early problems. SPC statistical process management, at present, is a powerful tool for quality control in many industries. It can be predicted that this tool will also help users in the electronic manufacturing industry to control the cleaning process.

Automatic calibration

The user can select the automatic calibration tool in the menu and achieve calibration of the instrument standard values without any operation.

Multi-language support

The language pack for Contamination Explorer supports the following languages: English, Chinese, German, Japanese.

Data export

The test results can be exported to the familiar common formats such as office word file, adobe pdf file, making your test data easier to share within or outside the group.

Friendly user interface

Contamination Explorer provides a user friendly interface with the Microsoft's latest MATERIAL DESIGN style, which is ideal for industrial users.



Model	NCT	NCT PLUS
Accuracy	0.001ug Eq NaCl/cm ²	0.001ug Eq NaCl/cm ²
Test Methods	Static/dynamic	Static/dynamic
PCB Size	500×500mm	700×700mm
Solvent Type	75%/50% IPA	75%/50% IPA
Solvent Capacity	30L	40L
Heater	Option	Option
Software	Contamination Explorer	Contamination Explorer
Dimensions(L×W×H)	1020×600×1020mm	1020×600×1020mm
Power Supply	0.5KVA	0.5KVA
Voltage	AC200-240V	AC200-240V

About Us

At Neotel Technology, we are committed to delivering the most advanced and competitive intelligent material handling solutions to our customers. As a leading manufacturer of production intralogistics in the electronics industry, we owe our success to the hard work and expertise of our experienced sales and technical team. Our efforts have made a significant impact on various industries across the globe, earning us recognition from both our customers and the industry at large. We are proud to continue pushing the boundaries of innovation and providing the best possible solutions to meet our customers' needs.

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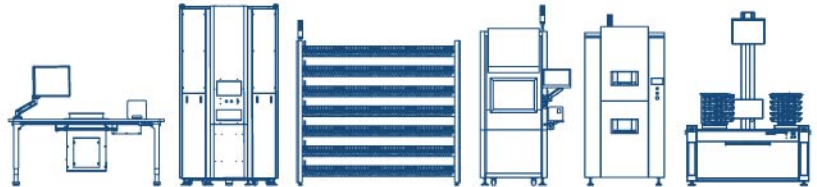
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