



SecureTest uses Smith & Associates' in-house resources to assure product quality. Smith was one of the first independent distributors to build an in-house testing lab, which we provisioned with the most advanced tools to verify component authenticity and functionality. Over the years, we've continuously upgraded our equipment and expanded our capabilities to stay at the cutting edge of quality assurance.

## Counterfeit Detection

Smith's counterfeit detection test labs are the technological backbone to our SecureTest program. Through the most advanced technology, we conduct thorough, in-house, quality control measures to verify product authenticity. Among our in-house counterfeit detection tools are the following:

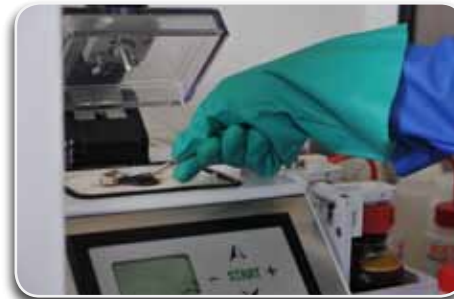
### Decapsulation Machine

Smith's in-house decapsulation machine is a powerful counterfeit detection tool. Through decapsulation, inspectors can verify die size and manufacturers' logos, confirm part numbers are correct, and inspect the architecture of the die.



### Luxo Scopes

These high powered microscopes provide amplified views of the outer surface of the component to detect signs of counterfeiting such as remarking, blacktopping, sanding, oxidation, and/or re-tinting.



### Solderability Test System

This machine tests the authenticity of components by verifying the quality of solder connections, ensuring that components are fully-functional, and have not been modified, altered or counterfeited.



### X-Ray Machine

This high resolution X-ray machine allows us to look inside components to verify that no voids have formed and that lead frames and bond wires are present and connected to the die. The machine also provides the capability of comparing OEM parts to X-ray images identifying inconsistencies or signs of counterfeiting.

### XRF Analyzer

This machine verifies material content to ensure compliance with RoHs and other environmental standards by detecting the presence of mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PDE), and other substances of concern.

### Dynasolve Chemical Solution Test

The purpose of this chemical test is to identify blacktopping, sand marks, differences in texture, and laser etch damage on counterfeit components. This chemical test exposes signs of counterfeiting without damaging the factory top-coating of authentic parts.

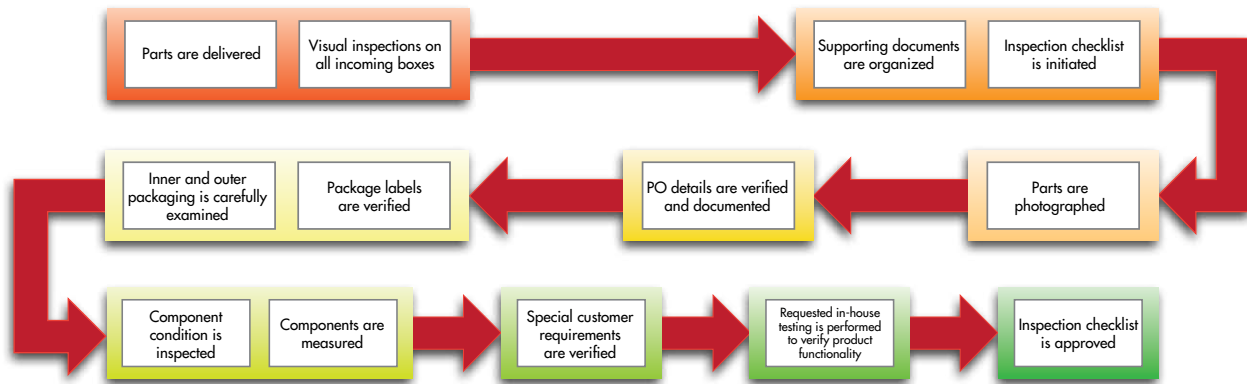


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## Visual Inspection

Smith's inspectors are trained to identify counterfeit and sub-standard components. Based on years of knowledge surrounding quality assurance and counterfeit detection and prevention, our inspection process includes careful examination of parts from the outer packaging inward. Smith adheres to the IDEA-STD-1010A and has over 30 inspectors who are IDEA-ICE-3000 certified. Once product is received at our facility a comprehensive visual inspection process is used to ensure product quality:



## Functionality Testing

Smith's testing process ensures that products are fully functional. Through our in-house testing labs, we offer a range of functionality tests including:

**CPU** - Test utilities are provided directly from the product manufacturer and controlled using Smith's internal utility revision program. CPU testing hardware and utilities are mirrored in each in-house test lab worldwide. Tests performed include packaging and functionality tests as well as "remark tests".

**Hard Drives** - Complete diagnostic testing for hard drives are available. Hard drives are tested on Smith's custom HDD test mock-up. All tests can be configured to your specifications and test times can vary based on tests selected. DOD Data wipe capability is also available to ensure sensitive data is destroyed.

**Board Level** - Smith can conduct diagnosis and testing of all motherboards and computer cards. Burn-in tests are conducted in PC Doctor. Board devices can be added or removed from the test script. All system boards are supported, including motherboards, video cards, audio cards, I/O cards, etc.

**Memory** - Products can be tested to verify functionality within manufacturers' specifications. Most memory modules can be tested on our stand alone memory tester, but server level modules and burn-in tests can be performed using test mock-up stations.

**LCDs** - Diagnostic testing of LCDs is done using a stand alone benchtop test unit. Smith has a custom programmable drive and pattern capability. Profiles are set up for each LCD model number and stored on the unit for future use. All panel sizes and manufacturers can be supported.

**Peripherals** - Complete diagnostic testing for optical disk drives, CD-ROM/DVD, and Blu-ray are available. Drives are tested for read/write functionality as well as multimedia capabilities. Full functional testing and benchmarking for video cards can be performed. Burn-in and rendering configurations can also be specified.

## Certifications



ISO 9001:2008  
Cert # 43796



ISO 14001:2004  
Cert # 43797



Smith's assurance of quality business practices is a comprehensive framework called SmithSecure. Bringing together the quality initiatives we've developed over the years with best practices across the industry, SmithSecure includes four core programs: SecureTest, SecureSource, SecureService, and SecureTech.