

# IC TESTS & COUNTERFEIT DETECTION SERVICE



Safeguard your supply chains and solve obsolescence issues with our **Fairstock** counterfeit detection service. Our in-house service offers a wide variety of options for testing IC's and passive components in all formats.

OEMs and CEMs use this service to confirm that the components they have purchased are fully functional, as per datasheet specifications. This can be in cases where the end customer requires independent third-party verification, suspected counterfeiting, and even for parts salvaged from PCBs due to obsolescence issues.

Component Distributors use **Fairstock** to test IC's they plan to sell to ensure that the components are in working order. We can also help to verify returned products or arbitrate on disputed products. And High Reliability organisations call on **Fairstock** to test that the IC they are purchasing can operate at the extreme temperatures required.

## VISUAL INSPECTION

Visual inspection criteria employed by **Fairstock** conforms to IDEA -STD-1010-B, MIL-STD-883G, and the mechanical dimension criteria of product datasheets. Our tests will not only find re-marked devices, but they will also be able to indicate whether the components are new and unused.

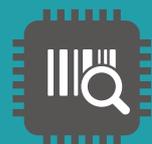
SAFEGUARD  
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EXPERIENCE &  
EXPERTISE



SECURITY &  
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COUNTERFEIT  
DETECTION

**FIND OUT MORE:**

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### **EXTREME TEMPERATURE TEST**

The Fairstock Temperature Test system fully conforms to the MIL-STD-883, and can electrically and functionally assess IC's at temperature extremes from +180oC to -55oC. This test is critical for extreme environment electronics.

### **ELECTRICAL TEST**

The Electrical test (Curve Trace) is an IC test used to assess the electrical parameters from pin to pin including, current, voltage, diode resistivity and silicon connectivity. This immensely strong tool allows us to detect whether a component is defective or not.

### **PERMANENCY MARKING TEST**

Using a selection of wipe testing, heated solvent testing and scrape tests, we can identify if a component has been sanded down and remarked (blacktopped) which would indicate a "suspicious" device by revealing original markings.

### **KEY FUNCTION TEST**

Our in-house experts design a test circuit to assess the main aspects of the device as detailed on the datasheets, for example, the Rds(on) value of a MOSFET. We can perform a range of functional tests on a device.

### **XRF TESTING/ANALYSIS**

Our XRF Testing/XRF Analysis facility uses a non-destructive method to determine what alloy a termination consists of. All devices can be XRF tested. This is a useful test to determine if a device is new or has previously been fitted to a PCB.

### **IONIC CONTAMINATION TEST**

An Ionic Test is performed to measure the level of ionic residues which is a good indicator of the cleanliness of the IC. Fairstock provides a full report that details the sample size, contamination value and device type.

### **SOLDERABILITY TEST**

Our solderability test verifies whether a component is re-solderable or not and if ready to be placed onto a PCB. If not, Fairstock can strip the terminations and re-tin to the specified alloy.

### **DECAPSULATION TEST**

Fairstock can de-cap a device and check for a range of visual indicators to help authenticate the originality. We can also check for device damage at high optical magnifications as the potential cause for any test failures.