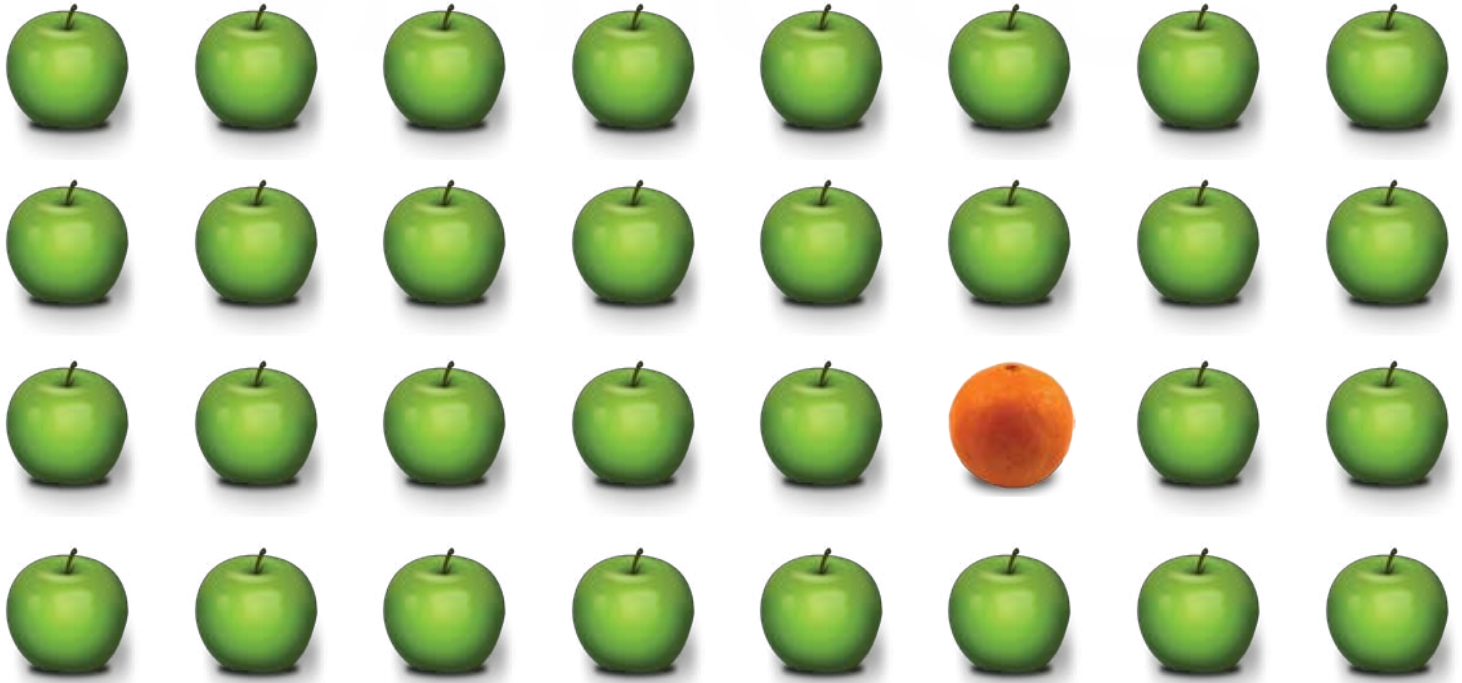


ORAFEC.ORG

organization against fraudulent electronic components

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We can help you find the bad apples. Introducing the ORAFEC-09

Protecting your business against counterfeit electronic components just got a lot easier. The ORAFEC-09 can verify the identity of your components, to save you time and money.

counter·feit

- made in exact imitation of something valuable or important with the intention to deceive or defraud - New Oxford American Dictionary

Counterfeit components are a worldwide problem. Any company requiring components to manufacture Printed Circuit Boards (PCBs) is at risk, and many have already received batches of “bad” devices.

Counterfeit components can be produced in several ways. Sometimes they are recycled and repurposed, from discarded circuit boards, in highly unsafe and damaging processes. Other times, they are produced from the same manufacturing facilities as genuine components, on “ghost shifts” which are outside standard business hours. These chips, however, can contain severe manufacturing faults, and may not even contain a silicon die. In whatever way they are created, counterfeit components are a threat to product functioning, product safety, and public confidence.

Unfortunately, until a component is placed on a PCB and a production team conducts the first tests on the completed assembly, it is not possible to tell counterfeit components from genuine. This leads to the costly process of identifying the components at fault, removing them from all boards in production, and in some cases, recalling parts to the factory.

In the last five years, reports of counterfeit components have increased exponentially; export of fraudulent ICs accounted for more than 8% of global merchandise trade, equivalent to \$6 billion in lost sales.



The ORAFEC-09 is designed to help companies protect their products and customers from counterfeit components in two ways:

- Check components as they are received, to ensure that they are valid. Since there is no knowledge of electronics necessary to use it, no special training is necessary.
- Review suspect components, and analyze test data with suppliers. More advanced users and testers can use a generated report to determine the exact point of failure.

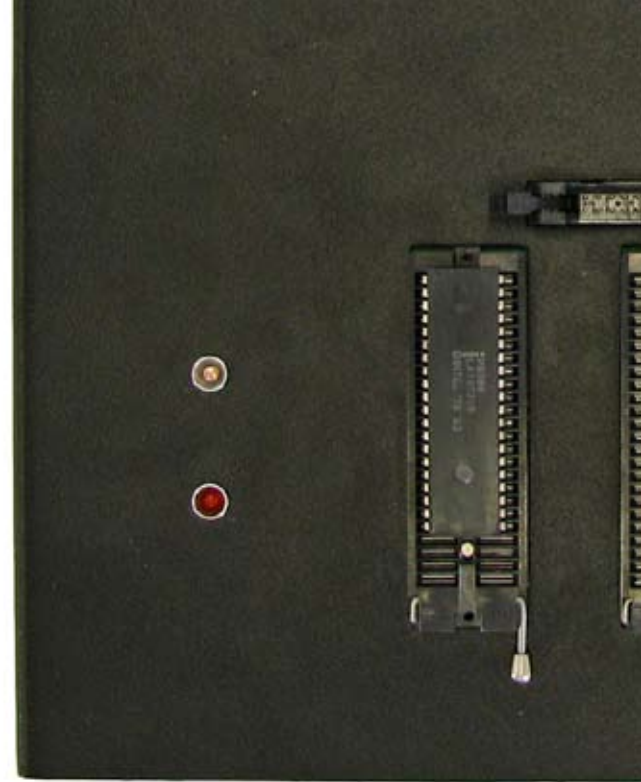
The ORAFEC-09 is designed for many types of components, from simple two-pin devices to more complex packages, such as:

- Dual In-Line (DIL)
- Small Outline Integrated Component (SOIC)
- Small Outline Package (SSOP, TSOP)
- Plastic Leadless Chip Carrier (PLCC)
- Quad Flat Pack (TQFP, PQFP, LQFP)
- Ball Grid Array (BGA)

The ORAFEC-09 is not limited to testing electronic components; it can also be used for complete modules.

How does it work?

When the ORAFEC-09 performs a scan, it applies electrical signals to a component's pins, or a subset thereof. By recording the electrical characteristics of those pins, the device forms what is called a PinPrint, a record of the scan. This PinPrint can be used to compare a known genuine component to a suspect one. When configuring a scan, the parameters which can be adjusted include the voltage range, low and high peak voltage, source resistance, and the frequency.



Technical Specifications



Electrical Requirements

Operating voltage: 85 - 264 VAC
Operating frequency: 47 - 63 Hz
Power consumption: 150 VA Max
CE approved & RoHS compliant

Physical Specifications

Dimensions: 27 x 25 x 9 cm
Weight: 3.5 Kg

Specifications

128 test channels (standard)
Expandable to 256 test channels in steps of 64
Sine, ramp and triangle waveform available
20V pk-pk max test voltage

Environmental Requirements

Operating temperature: 10°C to 30°C
Humidity: 20 to 80%

Included Accessories

User Manual
USB cable
Software CD
(including drivers and manual)

Computer Requirements

Microsoft Windows XP or Vista
Pentium 4 or above
Minimum RAM: 512 MB
Hard disk space: 200MB
USB 2.0 high speed port
Mouse, keyboard & monitor



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