

# Electronic component quality solutions for defence projects

Quality is everything to our customers. They tell us that this is the single most important reason they come back to us. This article discusses the key issues we are focussed on to maintain our unique quality standards.

Oxygen Electronics has worked hard to build an enviable reputation for the supply and support of allocated, obsolete and hard-to-find electronic components to the world's major defence manufacturers.

We currently interact with eight thousand electronic component sources worldwide. The biggest trend in recent years is the emergence of a new industry engaged in the volume manufacture of counterfeit devices.

As with all fake products the "quality" of the copy varies enormously. The key issue is product use. If an airline pilot wears a fake Rolex watch on his wrist whilst flying across the Atlantic then the possible consequences are probably not critical. What is critical is that the electronic component in the aircraft's altimeter performs exactly to the manufacturers specification.

“ **Be**  
vigilant  
to **avoid** counterfeits ”

## Counterfeit products warning

In the past three years the number of counterfeit electronic devices that Oxygen Electronics has detected in the marketplace has increased dramatically.

As well as non-functioning devices there is an increasing number of substandard cloned devices. If an OEM purchases a Freescale Semiconductor processor then they need to avoid the scenario where an unknown brand device is installed on the PCB, passes production test but then fails in product operation.

Comprehensive and detailed visual inspection of devices is critical in this process and this is the point where the majority of the substandard devices are detected. Detailed knowledge of the source of any device is vital to any manufacturing or distribution business. The paperwork trail including the

original manufacturer's Certificate of Conformance is an important consideration when selecting a supplier.

For these reasons Oxygen Electronics is particularly vigilant when selecting components manufactured or distributed from China, and regularly audits its supplier base to ensure that the source of components is fully documented. Maintenance of an effective ISO 9001:2000 management system is just the starting point.

Oxygen Electronics is working hard to stay ahead of the game and constantly updating systems to detect the sources of counterfeit devices to protect its customer base.

One of the most secure ways to confirm that a device is of original manufacture is to have a device tested by a professional component testing house. Oxygen regularly sends samples of devices to audited test houses prior to shipment.

Effective protection against damage from electro static discharge (ESD) is vital to ensure that the quality of an individual device is not compromised. ESD damage is a potential threat to a device throughout its life and handling and storage has to take place in controlled environments. A component that has been damaged by ESD may pass production tests but presents a future failure risk. Oxygen maintains a facility that is regularly audited by our defence customers to ensure it meets their ESD protection requirements.

## Brokers kept up-to-date

One extremely valuable tool we have is the market knowledge currently available in the electronic component broker community.

BrokerLynx is a web site forum set up and administered by Oxygen Electronics that allows recognised brokers to exchange data on subjects such as counterfeit product, fraudulent business practice, obsolescence management techniques etc. The site currently has 2743 active members from the electronic component broker community.

One of the key goals of the forum is to help identify sources of counterfeit components from whichever source. Members of BrokerLynx can search and download listings of counterfeit products. Community education is vital and a large percentage of the items listed include a digital photograph. Some of the extraordinary images could be considered funny were the issue not so serious.

To date there have been close to 16,000 posts with details of counterfeit components being one of the most active topics.

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**FOR MISSION-CRITICAL SYSTEMS**

**QUALITY IS EVERYTHING**

**QUALITY IS WHAT WE DELIVER**

Oxygen Electronics supplies obsolete, hard-to-find  
and allocated electronic components to the  
world's leading defence manufacturers

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