



# THE MANAGEMENT OF OBSOLESCENCE THROUGH AUTHORISED SOURCES

Electronic component life-cycles are shortening. As a large part of the world's semiconductor demand is driven by consumer electronics, Ken Greenwood, technical sales manager, **Rochester Electronics**, discusses how to manage stock and avoid the sourcing of outdated technology from an unauthorised distributor

When long-term product availability is vital, companies need to ensure a reliable source of components, even after the component is made obsolete. This means companies need to plan and manage obsolescence strategically. Failing to do so could lead to:

- Line-stops
- Large financial commitments tied up in 'last time buy' stocks
- Long-term storage costs
- Forced product re-designs
- Premature product end-of-life (EOL) and reduced service lives

To counteract this, here are the top tips to minimise the cost of obsolescence.

## OBsolescence MANAGEMENT

Poor component selection in development can lead to premature product re-design and re-qualification. This is particularly relevant for customers with long development and qualification cycles. Lowest cost may not be the best choice for long-term supply.

A few questions you should ask your supplier before proceeding:

1. What are the OCM commitments to long-term availability?
2. Can the supplier demonstrate a controlled transition process through end-of-life and into long-term authorised supply, or even long-term production?
3. Are the core components of your design – the software packed microcontrollers, FPGA's, or ASICs – comprehensively documented?

4. Can the true design files (VHDL, Spice-Models, Test-Vectors) be retained and archived at the design phase to offer a chance of recovery, and to re-build, should the unexpected happen?

## UNDERSTAND THE TOTAL COST OF OBSOLESCENCE

Ultimately, does your company understand and model the cost and risks associated with obsolescence? Component obsolescence is not just a purchasing problem to be addressed as an after-thought. Does the project plan need to include anticipated product re-designs during its life? How are the costs of component storage accounted for? How will obsolescence impact on after-sales service commitments?

## PLAN FOR OBSOLESCENCE AND RESOURCE THE MANAGEMENT OF IT

If your equipment has a long qualification, production, or in-service life, you will face component obsolescence. Preventative planning by purchasing, component engineering, design and programme management can reduce or eliminate the cost and risk.

## PRO-ACTIVE MONITORING OF COMPONENT LIFE-CYCLES

Regular component monitoring allows a user to anticipate problems before they occur. There are some excellent tools, such as I.H.S Parts Intelligence and BOM (Bill Of Materials) Intelligence, that track

a component's life-cycle, lead-time and specification changes over time.

## BE AWARE OF PRODUCT DISCONTINUATION NOTICES (PDN'S) WHICH AFFECT YOU

There are many component management databases that can provide you with a PDN notification service. This can be generic – where you are shown everything – or specific: where you load BOM structures into the database for it to then match and highlight any PDN that affects your products.

## PURCHASE FROM AUTHORISED SOURCES

LTB orders are inevitable, but a supplier with an established end-of-life transition partner offers at least the hope of continuing with authorised stock and production, risk-free.

There is a common misconception that once the original manufacturer stops making a component, unauthorised or grey market sources are the only option. Nothing could be further from the truth. The zero-risk option of an authorised after-market distributor, like Rochester Electronics, is always a relevant and worthy choice.

The risk of receiving counterfeit and poor-quality products from unauthorised sources represents a significant risk to production yield and failure rates (MTBR) in the field. Inferior or substandard "testing" by unauthorised third parties gives a veneer of confidence that "goodness" can be tested. In truth, the testing is a poor partial copy of the original manufacturers' test processes. Unauthorised component risks include poor handling, resulting in mechanical or ESD damage, or fake documentation, among other resulting faults. As such, original components manufacturers do not provide guarantees for products that are purchased without authorisation.

Sources like Rochester Electronics receive their stock exclusively from the manufacturers. Components will not leave the authorised bubble and as a result, Rochester Electronics are able to offer the original warranties and guarantees. Increasingly, Rochester Electronics are also able to offer an ongoing build from known-good-die and test products according to the original test procedures. Rochester Electronics' produced parts come with a current date code and no solderability risk, marked with the original manufacturer's P/No., and are compliant with the original specification.



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