



Grey market blues

The prevalence of counterfeit components is growing significantly, due partly to companies failing to plan contingency against the threat of obsolescence. In a desperate attempt to maintain production harmony, they use supply channels of unauthorised component markets and end up with a bad case of grey market blues!

ACAL Technology's sales and marketing director, Steve Carr reckons that, just like rock 'n' roll, counterfeiting will never die. "Counterfeiting is driven by the simple economics of demand and supply, and by the imperative of obtaining market prominence through the continual release of new and innovative products, which speeds product development and generates a significant reduction in product life cycles.

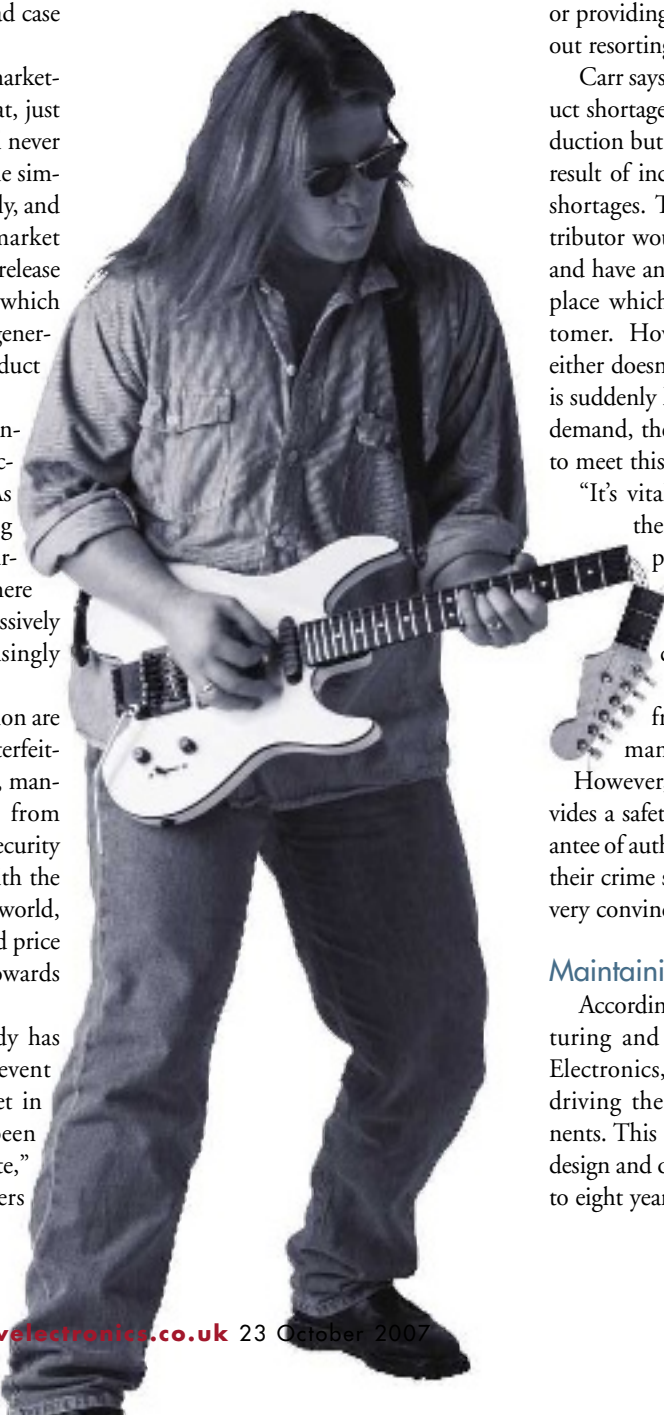
"It's this heated industry environment that makes the technology sector appear to offer rich pickings. As more component manufacturing migrates to Asia, where manufacturing lines are easily replicated and where the total cost of production is massively reduced, counterfeiting is increasingly becoming a global phenomenon."

Collaboration and communication are fundamental to ensuring that counterfeiting is minimised. In an ideal world, manufacturers would buy only from franchised distribution with the security of its formal binding agreement with the manufacturer. However, in the real world, obsolescence, product shortages and price increases can tempt customers towards the grey market.

"Franchised distribution already has processes in place designed to prevent the need to go to the grey market in search of parts which have been designed in and then made obsolete," Carr continued. "Manufacturers

How to avoid the nasty surprises of purchasing components that don't do what they say on the label.

By **Mike Richardson.**



communicate product road maps regularly and give early warnings of product withdrawals to their franchised distributors. They should then communicate this information to their customer base, allowing time for sufficient forward purchasing to complete the product life cycle or providing a window for redesign without resorting to the grey market."

Carr says the biggest challenge is product shortages, where a part is still in production but subject to capacity issues as a result of increased demand or piece part shortages. Typically, the franchised distributor would be monitoring lead times and have an early warning mechanism in place which can be flagged to the customer. However, when the customer either doesn't respond to the warnings or is suddenly hit with their own increase in demand, the distributor may not be able to meet this requirement.

"It's vital the distributor works with their customer to ensure that any parts identified on the grey market are genuine. Serial numbers, lot numbers, dates codes and photographs of the devices should be sent via the franchised distributor to the manufacturer for verification.

However, although this process provides a safety net, it is not a 100% guarantee of authenticity as counterfeiters take their crime seriously and the fakes can be very convincing."

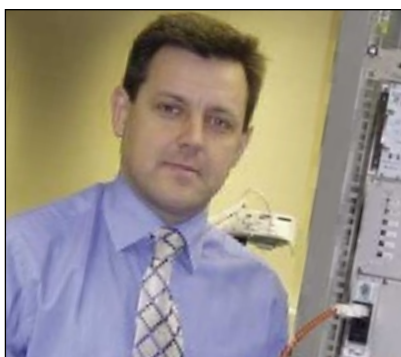
Maintaining the status quo

According to semiconductor manufacturing and supply specialist Rochester Electronics, a number of dynamics are driving the rise in counterfeit components. This involves: lead free equipment design and qualification, which can be up to eight years; long production and man-



ufacturing, which can be anything up to five years; and long equipment service life, which can be from 20 to 50 years. Semiconductor life from an oem, meanwhile, can be anything from 1 to 10 years.

“Rochester Electronics is the only company that is contractually authorised by more than 40 leading semiconductor vendors to support their customer’s after market requirements for discontinued semiconductors,” claimed European sales director Colin Strother. “We provide the most comprehensive and extensive product supply with 1.6billion devices and



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more than 6bn die in stock.”

Strother says that Rochester’s ‘unique selling point’ is in providing 100% factory direct components, completely traceable to the original manufacturer. And if a designer can’t find a particular device, Strother confirms that Rochester Electronics can provide the same part – not a close functional alternative.

“We take finished goods, dies and IP test programs and continue to re-fab after one of our manufacturing partners has made a device end of life (EoL). If a designer cannot find a part and has to source it using the grey market or go for a redesign, we can provide the original part from the manufacturer or the part’s original die, packaged under authorisa-



tion from the original manufacturer.”

If you can’t purchase from the oem, or the oem’s franchised or authorised source, and are therefore forced to take a different route, Strother advocates validating the traceable origin of the product to ensure that it has been handled securely through the supply chain. If you have suspicious product, get it checked by a credible test house and report any questionable counterfeit devices to the OEM.

He advises caution in using the grey market: after all, there’s always going to be another supplier providing cheaper components. The part may have come from a different route without the full traceability and therefore could even be counterfeit. Ultimately, if there is a potential cost saving to be made, then people may take the risk and ignore buying through an authorised source.

Strother continued: “If you design a part for a product that has never had a



long lifespan, you do it with the best of intentions. But you don’t necessarily know what the future is going to hold for that device. We offer a Bill of Material (BoM) health analysis for customers where they provide us with their parts and we run them through a BoM ‘scrub’ facility that provides a detailed report of whether the devices are active, EoL or no longer manufactured.”

Micromark’s general manager Alan Jermyn notes that a manufacturer can offer a new and cleverly packaged solution to market, allowing the designer to integrate multiple components into one chip, but the solution may only be available from one vendor. This can put them at the mercy of that vendor when it comes to delivery. The price may well be worth paying in the context of the total assembled cost, but if lead times start to slide and product availability moves out, the designer is caught between the rock of a line stop, and the hard place of sourcing product of uncertain provenance on the grey market.

“Whilst some grey market products are perfectly genuine overstocks, there is also a huge amount of counterfeit product out there,” he explained. “It is extremely difficult, if not impossible, to tell the difference before purchase and it can be almost as hard to tell at goods inwards inspection.”

Price is a great driver towards the grey market and as ACAL’s Carr notes, it becomes a case of let the buyer beware. “In component distribution, as in life itself, if it sounds too good to be true, then it probably is!”