Electronics Counterfeiters Capitalize on Component Shortages
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Every dark cloud has a silver lining. Unfortunately, the real beneficiaries of the current long-term and lasting component shortages are counterfeiters.

“Current estimates for the annual loss to the electronics industry due to counterfeit components is north of $5 billion,” said Creative Electron CEO Bill Cardoso in an article on EPSNews sister publication EBN. “With rewards that high, it’s no surprise that criminal enterprises are getting more and more sophisticated in their efforts to cash in on counterfeit parts.”

Shortages go in cycles. “For years, it was tantalum capacitors, but not its many types of passives, including multilayer ceramic capacitors (MLCCs), as well as certain semiconductors,” said Robin Gray, chief counsel of the Electronic Component Industry Association (ECIA). “A key takeaway is that when times are good, lead times are always pushed out. When that happens, it’s more of an opportunity for counterfeiters to step in and do your product.”

In the past, when components were in short supply, component makers scrambled to add capacity. “A lot of manufacturers added capacity,” said Gray. “The forecast on demand didn’t pan out so they over built and flooded the market, and everybody got burned by excess inventory.”

Once burned is twice shy for many component makers and distributors. “This time around you see more reluctance on part of manufactures to expand capacity,” Gray explained. “Further, you’ll see average selling prices (ASPs) go up.”

Component makers should be aware of the dangers of short stock situations. “One mistake involves not properly identifying where or how products are leaking [into the market],” said Kasia Maciola, communications committee chair for the Alliance for Gray Market and Counterfeit Abatement (AGMA). “Don’t simply focus your business on selling, selling, selling by dumping everything into the market as cheaply as possible – instead, try to establish healthy sales and high margins.

Purchasers, then, are faced with a dilemma: should they stick with known suppliers and put up with delays; or look for a different route to get the product they need? Gray advises that OEMs stick with franchised sources.

“The new standards particularly for aerospace is that they have to buy from authorized sources first,” said Gray. “We tell people you have to plan for obsolescence, which is another cause of shortages. Work with key manufacturers to understand their technology roadmap as much as possible. If a product is going away, make a one-time buy, or partner with a distributor or authorized aftermarket manufacturer. Requalification is expensive and a time delay, and even a new part upgrade requires that.”

Buyers should encourage their organizations to put a compliance program in place, in consultation with corporate attorneys who understand the issues and challenges involved, said Maciola. “It’s also crucial to educate distributors – and to hold them accountable if they should engage in any gray market activity,” she added. “In addition, there is a role for regulators – to create laws that protect both consumers and brand owners. While there are some laws in place, there is work to be done in this area.”

If using a non-franchised source, testing is important. It is not, however, foolproof. In one test, which occurred several years ago, a major component manufacturer picked five testing houses and sent out a mix of counterfeit and genuine parts, explained Gray. These testers missed one out of five counterfeits.

Much work is being done to improve these technologies. “As an industry, we must step-up our efforts and meet this problem head on,” said Cardoso. “We need to leverage more sophisticated solutions. X-ray is one of several tools that can be deployed to combat the counterfeiters.”

Click on the image below to start a slideshow on EBN of 10 Ways X-Ray Can Help Identify Counterfeit Parts.