



Global Industry Practices Committee

**AS6496 - Fraudulent/Counterfeit Electronic Parts: Avoidance, Detection,
Mitigation and Disposition, Authorized/Franchised Distribution**

Five Year Review Update

Recent Revisions to AS6496

The Society of Aerospace Engineers ([SAE's AS6496](#)) is an anti-counterfeiting measure outlining requirements for mitigating counterfeit products in the authorized distribution supply chain by distributors performing authorized distribution.

SAE adopted this standard on August 20, 2014, with the official title of "Fraudulent/Counterfeit Electronic Parts: Avoidance, Detection, Mitigation and Disposition – Authorized/Franchised Distribution."

The standard is used by authorized distributors to reduce the risk of counterfeit electronic parts entering the aerospace supply chain but is a reliable anti-counterfeiting model for sales to any customer.

SAE requires that every standard be revisited every five years; that process has just been concluded and the revised version, AS6496A is out for a vote now.

Background on AS6496

The concern about counterfeit components becoming part of mil/aero equipment has been on the government's radar for several decades; one Businessweek article ("[Dangerous Fakes](#)" in Oct. 2008) elevated the topic to the mainstream consciousness. This resulted in a series of Defense Federal Acquisition Regulations (DFARs) that impacted the sale of components, prompting the SAE to publish AS5553 in 2009, which governed the OEM making products from these components. Since most of the counterfeit components were coming from independent distributors and component brokers, SAE commissioned a standard just for that sector of the supply chain: AS6081, which was published in 2012. It continues to be revised.

Since a standard designed for the brokers includes measures that are not relevant to authorized distributors, another standard was clearly needed to avoid unnecessary time and expense in compliance. Robin Gray, of ECIA, and Kevin Sink, TTI, convened another SAE committee to develop a standard that would apply to the authorized distribution channel. Companies that were part of this long and arduous process included Lockheed, BAE, Boeing, Rochester, TTI, Future, Arrow and others.

As these standards evolved, information was shared at industry conferences and through committee interactions that resulted in better counterfeit detection within the mil/aero manufacturing process. This created an arms race with counterfeiters. Other committees were formed to develop more advanced techniques, including AS6171, which forms the basis for laboratories (independent or in-house) to use when doing part authentication.

Work continues to develop better industry practices and improved detection techniques; meanwhile, counterfeiters continue to get more sophisticated. The industry needs to constantly stay vigilant.

What's Changed in AS6496A

The first set of changes relates to the scope and application of the standards. **All the standards dropped the term 'fraudulent' in the rationale.** Any deviation from the specification was considered fraudulent and the defense department included those in its definition of counterfeit. That was changed so the standard only applied to counterfeit parts.

Under 'scope' in the standard, **the word 'products' was changed to EEE**, narrowing the range of products considered to electrical, electro-mechanical, and electronic. Originally the standard was designed for any product that an authorized distributor would sell, including solder, power supplies, and so forth. The standard was revised to allow the distributor to include those products if they choose to do so, but the standard only applies to EEE. This aligned AS6496 with the rest of the SAE suite of anti-counterfeit standards.

Another set of changes relates to definitions. First, there is more **nuance as far as what authorization means**. Some distributors may choose to sell product for which they do not have an authorization agreement. When they do so, a disclosure requirement kicks in, so the customer understands that the distributor is not authorized for that transaction and that the manufacturer's warranty will not apply. For example, if a distributor is not authorized for a certain part in a certain geography, they must disclose that fact.

The definitions **and implications of using commercial off the shelf parts (COTS) were also refined** to differentiate these from mil-spec components. Mil/aero customers focus on traceability paperwork, e.g. what is the date code, lot number, and the location where it was produced, and so forth. Mil-specs govern the provision of this information. Commercial customers, the primary users of COTS, do not have such requirements. Because there is a cost to gather and administrate this, it is not typically provided with COTS components. The revision outlines the distinction between COTS and Mil-spec parts.

Record-keeping requirements were extended from three years to 10 years in the standard. Most distributors were already saving records for five years and a survey conducted by ECIA determined that distributors agreed with extending that to 10 years to assist the customers in this critical industry.

Risk assessment related to return verification was revised. The return methodology must be 'risk-based'. The risk is if a customer returns a different component than what they were sold. The distributor must monitor that. If they have concerns about the customer – if the returned product is not in the same packaging and so forth, it is up to the company to decide what to do. They could take it back, they might have to test it, or even scrap it. But you cannot apply the same risk assessment as for a trusted customer.

The final change is in the **reporting requirement**. The language was changed from 'assure that all occurrences of suspect/counterfeit parts are reported' to 'assure that parts that show clear and convincing objective evidence of being counterfeit are reported.' This is because the authorized channel has the advantage over the independent distributor, or even the customer, in that they have access to the manufacturer to verify whether a component is theirs or not. So, for example, in situations where

the component manufacturer has re-marked a part for a certain tolerance, and that gets identified as counterfeit, this revision acknowledges that authorized distribution has access to the OCM and can better determine if the part is legitimate or counterfeit.

Conclusion

Authorized distributors have been working on this issue for decades. The ECIA's GIPC, Kevin Sink of TTI, and many others have been doing reviews of customer and supplier practices, working on standards committees, presenting findings at conferences, and developing and implementing processes to prevent counterfeit components from entering the supply chain. The simplest and most effective way for EMS and OEM customers to avoid counterfeits is to use the authorized component channel to purchase their BOM.

ECIA has built a portal for that purpose, called www.trustedparts.com. While other inventory aggregation sites may include data from sources that are not authorized by the manufacturer, ECIA works extensively on an ongoing basis to verify that price and availability data displayed on TrustedParts.com is only for products for which the distributors are authorized/franchised. That is why TrustedParts.com is the trusted source for searching the authorized channel for electronic components.

