Starwin Counterfeit Materials and Parts Policy

Starwin's primary risk of encountering counterfeit parts or materials is in the acquisition of raw materials (metals, composite fabrics, and resin systems) and fasteners but we understand the need to be aware of all areas of risk due to the wide range of services we provide. Therefore, we have developed a broad Counterfeit Parts Policy.

Starwin's QMS acknowledges the emerging statutory and regulatory requirements developed to mitigate the growing threat of counterfeit and fraudulent products. Starwin's Counterfeit Materials and Parts Policy is modeled to be compliant with AS9100 and DOD requirements.

During the lifStarwinme of an aerospace system, the technologies particularly electronic components such as microchips change. Currently, during the design, production and service life of an aircraft the computers used to design and support it will change nine or more times. The software used to design and support, the infrastructure used to store information for the aircraft and the infrastructure used to store, transmit, or receive information and communications will all change three times or more. Manufacturing processes used to assemble the aircraft will change two or more times and the system and subsystems used in the aircraft will change nine or more times. These rates of change may increase as technology evolves. Therefore, supporting aerospace and defense products throughout their lifecycle somStarwinmes requires the use of parts that may no longer be available from the original chip manufacturer (OCM), original equipment manufacturer (OEM), authorized aftermarket manufacturer or through franchised or authorized distributors or resellers.

When parts and materials, such as microcircuits, are acquired through distribution channels other than those franchised or authorized by the original manufacturer, such as an independent distributor or broker, there is the potential to receive parts that do not meet the original specifications. An electronic part, for instance, could be a fake non-working product, a new product remarked as a higher grade or an invalid part.

Regardless of how counterfeit parts, whether electronic, mechanical or other enter the aerospace and defense supply chain, they can jeopardize the performance, reliability and safety of aerospace and defense products. Authentic parts have known performance histories and adhere to the manufacturers' quality control plans, whereas counterfeit parts have unknown performance reliability and often limited quality controls. The cost of counterfeit parts entering the supply chain is greater than simple replacement of the counterfeit part. Ramifications could include potential product failure, warranty costs, inspections and testing, restocking, lost revenue, exfiltration of electronic data, loss of intellectual property such as trademark value and compromising national security. For defense and space applications, the cost of mission failure may be catastrophic.

Definitions

- Counterfeit product is defined as “an unauthorized copy, imitation, substitute, or modified part, which is knowingly misrepresented as a specified genuine part of an original or authorized manufacturer with the intent to mislead or defraud by presenting the imitation as original or genuine”.

- The FAA Advisory Circular 21-29C, Detecting and Reporting Suspected Unapproved Parts defines counterfeit parts as “A part made or altered to imitate or resemble an “approved part” without authority or right, and with the intent to mislead or defraud by passing as original or genuine”

- OCM - Original Component Manufacturers

- OEM - Original Equipment Manufacturers

- C of C - Certification of Conformance or Certificate of Compliance

- C of CT-Certificates of Conformance and acquisition traceability

- Authorized/Franchised distributors - Those distributors with which OCM/OEM have contractual agreements identifying them as “Authorized” or in a like manner to buy, stock, re-package, sell, and distribute their product lines.

- Non-Authorized Suppliers/Brokers – A Non-Authorized/Franchised distributors, Independent distributors or any organization other than an OCM, OEM or their Authorized/Franchised distributors.

Risk Mitigation

It is reasonable to assume that if a product can be counterfeited, it will be. Additionally, the quality of counterfeiting has dramatically improved over the last several years. Therefore, a continuously improving, diligent approach to purchasing, inspection, and test practices is critical to minimize the adverse impact of counterfeit materials.

Starwin applies the following guidelines to minimize the risks posed by counterfeit materials and components:

- Whenever possible, Starwin will purchase materials or components from Original Equipment Manufacturers (OEMs) and their authorized suppliers. Products purchased from unauthorized suppliers are considerably more at risk of being counterfeit.

- Obsolescence is a justifiable reason to purchase from a non-OEM supplier if no other options exist. Starwin aggressively manages the supply chain to ensure non-OEM suppliers have been thoroughly vetted and maintain an Approved Venders List to reduce the risk of receiving counterfeit material.

- Starwin has established a risk-based set of inspections and tests to detect counterfeit material.

- We report suspect counterfeit parts to all pertinent stakeholders, including Aerospace and Defense customers. If applicable, we will report counterfeit and suspect counterfeit material to the Government-Industry Data Exchange Program (GIDEP) or another central data collecting agency.

- We have trained affected personnel such as program management, purchasing, inspection, test, production, engineering, and quality in the prevention, detection, containment, reporting, and disposition of counterfeit material.

- We contractually obligate contractors and their sub-contractors to implement counterfeit mitigation practices, including those described above.

Identifying Suspected Counterfeit Materials and Components

Counterfeit material, or component characteristics can include the false identification of marking or labeling, grade, serial number, date code, documentation, or performance characteristics.

Examples of counterfeit parts may include:

- Components which do not contain the proper internal construction (die, manufacturer, wire bonding, etc.) consistent with the ordered part.
- Components or materials represented as new which have been used, refurbished or reclaimed.
- Components or materials with modified labeling or markings, different package style, or surface plating/finish intended to misrepresent the parts form, fit, function, or grade compared to the ordered product.
- Components or materials which have not successfully completed the Original Equipment Manufacturers' (OEM's) full production and test flow but are represented as completed product.
- Electronic components sold as upscreened parts (COTS items tested beyond their original test parameters) which have not been successfully upscreened.

Certain categories of items such as Electronic Components (integrated circuits, transistors, diodes, and resistors), Mechanical parts (valves, bearings, and fasteners), and Materials (metals, lubricants, adhesives, refrigerants, and batteries) are identified as counterfeit more often than others. A 2012 Defense Logistics Agency (DLA) assessment of counterfeit risk within DLA's supply chain covered sixty-nine Federal Supply Groups (FSGs) managed by DLA. The five highest risk FSGs were:

FSG 59	Electrical and Electronic Equipment Components, such as: Integrated circuits; Transistors; Diodes; Connectors, and Electronic assemblies
FSG 29	Engine Accessories, such as: Filters; valves, and pumps
FSG 47	Pipe, Tubing, Hose and Fittings
FSG 53	Hardware and Abrasives, such as: Nuts; Bolts; Washers; Screws; Brackets; Seals; O-Rings; Lubricants, and Abrasives
FSG 25	Vehicular Equipment Components, such as Brakes and Springs

Suspected Counterfeit Part Reporting

Reporting of counterfeits is crucial to aerospace and defense companies and government entities as it allows them to search their inventory for possible receipt of the suspected counterfeit part. Starwin will report any counterfeit or suspected counterfeit material or components directly to our customers.

Currently Starwin feels our direct notification to our customers is sufficient to the level of risk we have encountered. If applicable Starwin will report to independent reporting agencies such as the FAA's Suspect Unapproved Parts Program, Government Industry Data Exchange Program (GIDEP), the Independent Distributors Electronics Association (IDEA) or ERAI.

Starwin Suppliers

STARWIN suppliers are required to purchase from OCM, OEM, or authorized distributors for such OCM/OEM, as sole and exclusive sources for all Electronic Assemblies, components or parts to be delivered to STARWIN and to obtain and retain written records for such.

Suppliers shall secure a C of C and/or C of CT for all electronic assemblies, components or parts to provide to STARWIN upon request and maintain on file as described within applicable STARWIN purchase orders and in compliance with AS9100 REV D and/or ISO9001:2015 requirements as well as STARWIN's Terms and conditions.

- Note 1 The use of Non-Authorized Suppliers/Brokers without express written consent by STARWIN is hereby strictly prohibited
- Note 2 See paragraph 6 for Process for Use of Non-Authorized Suppliers/Brokers.

Numerous customers are requiring STARWIN and our suppliers to implement a counterfeit parts policy with their suppliers and sub-tier suppliers. STARWIN is diligently working to control any potential counterfeit parts entering our facility, even those sources controlled by our customers.

Supplier Responsibility

All suppliers are required to take the following actions:

- Implement and enforce a written Counterfeit Parts Prevention and Control Plan designed to preclude, detect, and remove any counterfeit parts from all deliveries to STARWIN. This is not limited to electronic parts
- As an integral part of this plan, the supplier shall maintain a database of counterfeit components/parts received and applicable source data
- STARWIN requires that suppliers review AS5553 and other published or unpublished standards (See "Associated Documents"), for counterfeit component/parts avoidance, detection, migration and disposition, as best practice review and confirm internal procedures are appropriate and effective.
- Actively cooperate with STARWIN in the implementation of this policy to eliminate counterfeit components from all products
- Ensure this policy and the expected actions are communicated to quality and business leaders throughout your company and your suppliers and their subtiers.

Use of Non-Authorized Supplier and Brokers

The use of Non-Authorized suppliers/Brokers without express written consent by STARWIN is hereby strictly prohibited. Should business reasons (obsolescence, cost, lead time, customer commitments, etc.) dictate the use of such suppliers, the following process is required:

- Supplier shall notify in writing the Purchasing Representative at STARWIN of a requirement to utilize a non-authorized source.
- Supplier shall provide specific details regarding the suggested source, the known details on component pedigree, date code, and use of this suggested verification/test plan for component Verification.
- Electronic parts not available through a OCM, OEM or authorized distributors for such OCM/OEM may be procured from a Broker without C of CT only after STARWIN approval and Component authenticity verification per Component Verification section and Testing/Analysis Table.
- Broker shall have an active counterfeit part detection program. STARWIN may review relevant databases (ERAI, GIDEP) to evaluate broker's history of supplying counterfeit components prior to approval.
- Suppliers shall notify the appropriate STARWIN buyer to request Design activity for component replacement or circuit board re-design.
- Supplier shall provide all details in writing on a supplier request form document which includes a customer sign off and approval section.
- STARWIN shall review the supplier request and will either approve, reject, or return with comments of requested changes including but not limited to additional or alternative verification requirements. Visual inspection, part marking inspection, and C of C inspection shall be included as critical verification steps in all such instances.
- Should STARWIN provide approval, the supplier shall provide Certification of Conformance, verification documentation, and any test results promptly to STARWIN.
- Supplier is not approved to deliver product(s) to STARWIN until signed approval is provided and certification of conformance and test results are provided and confirmed to be compliant to the details agreed upon in the approved supplier request form.

Disposition and Reporting of Counterfeit Parts Disposition and Segregation

Nonconforming parts shall be disposition and segregated per this document. Confirmed counterfeit parts shall be prevented from re-entering the supply chain. Reporting all occurrences of counterfeit parts shall be documented and reported, as appropriate, through ETI Purchasing and when possible to external organizations such as: (ERAI, GIDEP law enforcement agencies). Membership and CONTERFEIT PART POLICY AMENDMENT TC1 REV -INTERNATIONAL) and /or GIDEP (GOVERNMENT - INDUSTRY DATA EXCHANGE PROGRAM) organizations should be attempted should a counterfeit part be determined.

Find ERAI web site at: http://www.erai.com/
Find GIDEP web site at: http://www.gidep.org/

Liability

Suppliers shall be held liable for any counterfeit parts entering ETI supply chain up to and including all costs incurred by ETI resulting from the counterfeit parts.

Standards Reference Documents

Published or Unpublished

AS5553 - Counterfeit Electronic Parts; Avoidance, Detection, Mitigation and Disposition AS5553

AS6081 - Counterfeit Electronic Parts; Avoidance Protocol, Distributors AS6081

AS6174 - Counterfeit Material; Detection, Mitigation and Disposition AS6174

AS9100 - Aerospace Quality Management Standard

AS9120 - Quality Management Standard; Requirements for Aviation's, Space and Defense Distributors

ARD6884 - Terms and Definition; Fraudulent/Counterfeit Electronic Parts

ARP6178 - Fraudulent/Counterfeit Electronic Parts; Tools for Risk Assessment of Distributors

ISO9001 - Quality Management

Standard GIDEP - GIDEP OPERATIONS MANUAL