



ELECTRONICS & TECHNOLOGY, INC.

VECTOR ELECTRONICS & TECHNOLOGY, INC

11115 VANOWEN ST., NORTH HOLLYWOOD, CA. 91605 Tel: (818) 985-8208, Fax: (818) 985-7708

VECTOR IS ISO 9001:2015 & AS9100 CERTIFIED

Counterfeit Parts Prevention Program

Policy Letter 13-2013, Rev. C

1.0 Purpose

The purpose of this document is to describe the process and due diligence performed by Vector Electronics and Technology, Inc. (VET) to prevent the purchase and / or use of Suspect Counterfeit or Counterfeit Parts and meet the requirements of DFARS 252.246.7007 & 7008, the AS5553 Standard and AS6174 for Counterfeit Electronic Parts Avoidance, Detection, Mitigation and Disposition in order to:

- Maximize availability of authentic parts.
- Procure parts from reliable sources.
- Assure authenticity and conformance of procured parts
- Control parts identified as counterfeit.
- Report counterfeit parts to other potential users and Government investigative authorities

2.0 Scope

This document applies to the purchasing/procurement activities within VET to the extent specified herein.

3.0 Applicable Documents

The following publications shall be applicable to the extent specified herein, or as defined on the contract or purchase order. In the case of a conflict between this document or any of the documents referenced herein and the customers stated requirements in their contract or purchase order, the customer's requirements shall take precedence.

- AS5553, Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition
- AS6081, Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition- Distributors
- AS9100, Quality Management System Requirements – Aerospace Unapproved Parts
- AS6171, Test Methods Standard; General Requirements, Suspect/Counterfeit, Electrical, Electronic, and Electromechanical Parts
- AS6174, SAE Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel
- DFARS 252.246.7007, Contractor Counterfeit Electronic Part Detection and Avoidance Systems
- DFARS 252.246.7008, Sources of Electronic Parts
- IDEA-STD-1010, Acceptability of Electronic Components Distributed in the Open Market
- VET Quality Manual
- VET Procedures Manual



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4.0 Definitions

4.1. **Suspect Counterfeit Part (AS5553)** – A part in which there is an indication by visual inspection, testing, or other information that it may not conform to legal, established government or industry accepted specifications or national consensus standards, or one whose documentation, appearance, performance, material, or other characteristics may have been misrepresented by the supplier or manufacturer.

4.2. **Suspected Unapproved Part (SUP) (FAA)** – A part, component, or material that is suspected of not meeting the requirements of an approved part. A part that, for any reason, a person believes is not approved. Reasons may include findings such as different finish, size, color, improper or lack of identification, incomplete or altered paperwork, or any other questionable indication.

4.3 **Counterfeit Part (AS5553)** - A suspect part that is a copy or substitute without legal right or authority to do so or one whose material, performance, or characteristics are knowingly misrepresented by the supplier. Examples of counterfeit parts include, but are not limited to:

- a. Parts which do not contain the proper internal construction (die, manufacturer, wire bonding, etc.) consistent with the ordered part.
- b. Parts which have been used, refurbished or reclaimed, but represented as new product.
- c. Parts which have different package style or surface plating/finish than the ordered parts.
- d. Parts which have not successfully completed the OCM's full production and test flow, but are represented as completed product.
- e. Parts sold as up screened parts, which have not successfully completed upscreening.
- f. Parts sold with modified labeling or markings intended to misrepresent the part's form, fit, function, or grade.

4.4 **Counterfeit Materiel (SAE AS6174A)** Standardizes practices to purchase and maximize materiel, assure authenticity and conformance of and control fraudulent/counterfeit materiel.

4.5. **Aftermarket Manufacturer:** A manufacturer that meets one or more of the following three criteria:



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1. The manufacturer is authorized by the OCM to produce and sell replacement parts, usually due to an OCM decision to discontinue production of a part. Parts supplied are produced from dies that have been
 - a. transferred from the OCM to the aftermarket manufacturer,
 - b. produced by the aftermarket manufacturer using OCM tooling and intellectual property (IP), or
 - c. produced by the aftermarket manufacturer through redesign to match the OCM's specifications without violating the OCM's intellectual property rights (IPR), patents, or copyrights.
2. The manufacturer produces parts using semiconductor dice or wafers, manufactured by and traceable to an OCM, that have been properly stored until use and are subsequently assembled, tested, and qualified using processes that meet industry or government standards without violating the OCM's intellectual property rights, patents, or copyrights.
3. The manufacturer produces parts by emulating or reverse-engineering obsolete parts to satisfy continuing customer needs without violating the OCM's intellectual property rights, patents, or copyrights.

In any case, the aftermarket manufacturer must label or otherwise identify its parts to ensure that the 'as shipped' aftermarket manufactured part should not be mistaken for the part made by the OCM.

4.6. **Approved Supplier** – Suppliers who are formally assessed and determined to have a low risk of providing counterfeit product (i.e. Original Component Manufacturer, Authorized (Franchised) Distributors).

4.7. **Authorized Supplier** – Authorized sources of supply (i.e., authorized distributors, franchised distributors) for Aftermarket Manufacturers and the OCM for a specific part.

4.8. **Broker** – A type of independent distributor that works in a “Just in Time” (JIT) environment. Customers contact the broker distributor with requirements identifying the part number, quantity, target price, and date required. The broker distributor searches the industry and locates parts that meet the target price and other customer requirements.

4.9. **Franchised Distributor** – A distributor with which VET has a contractual agreement to buy, stock, re-package, sell and distribute its product lines. When a distributor does not provide products in this manner, then for the purpose of AS5553, the distributor is considered an independent distributor (broker) for those products. Franchised distributors normally offer the product for sale with fully



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manufacturer flow-through warranty. Franchised contracts may include clauses that provide for the Original Component Manufacturer's (OCM) marketing and technical support inclusive of, but not limited to, failure analysis and corrective action, exclusivity of inventory, and competitive limiters.

4.10. Independent Distributors – A distributor that purchases new parts with the intention to sell and redistribute them back into the market. Purchased parts may be obtained from original equipment manufacturers (OEM's) or contract manufacturers (typically from excess inventories), or from other independent distributors. Re-sale of the purchased parts (re- distribution) may be to OEM's, contract manufacturers, or other independent distributors. Independent distributors do not have contractual agreements or obligations with OCMs.

4.11. Certificate of Conformance (C of C) – A document provided by the supplier formally declaring the purchase order requirements are met. The document may include information relative to the manufacturer, distributor, Quantity, date code, inspection date that is signed by a responsible associate for the supplier.

4.12. Certificate of Conformance and Traceability (C of CT) – A certificate of conformance applicable to some military specifications requiring documented traceability of the product from the Qualified Parts List / Qualified Materials manufacturer through the product delivery to the Government.

4.13. ERAI – A privately held global trade association who monitors, investigates, reports, and mediates issues affecting the global supply chain of electronics including the supply of counterfeit and substandard parts.

4.14. GIDEP – a cooperative activity between government and industry participants seeking to reduce or eliminate expenditures of resources by sharing technical information essential during research, design, development, production and operational phases of the life cycle of systems, facilities and equipment.

4.15. IDEA – The Independent Distributors of Electronics Association

4.16. Original Equipment Manufacturer (OEM): An entity that designs and/or engineers a part of and is pursuing or has obtained the intellectual property rights to that part or the process used to produce the part.

4.17. Packaging – Component packaging refers to the manner in which individual or grouped parts are packaged in preparation for distribution and use.



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- 4.18. **Refinishing** – Using a plating process method after manufacture to alter the original plating composition on a parts lead or lead wire.
- 4.19. **Refurbished** – Subjecting parts to a process to brighten, polish, or renovate the item in an effort to restore the item to a “like new” condition. Refurbished electronic parts may have the leads realigned and tinned.
- 4.20. **Upscreened** – Additional part testing performed to produce parts verified beyond the specification parameters of the manufacturer.
- 4.21. **Used** – Electrically charged parts removed from a prior application. Parts should be examined for nonstandard packaging, mixed lots / dates, parts from various sites, scratches, bends, test dots, faded marking, chemical residue, or other signs of use. Used parts may be sold with a limited warranty. Programmable product may still contain partial or complete programming capability that may affect part functionality. Used parts marketed as such should be declared accordingly.

Note: Additional definitions may be found in the references listed in paragraph 3.0.

5.0 Responsibility

- 5.1. The Quality Manager is responsible for implementation, oversight and training related to this document. All VET employees involved in purchasing, procurement, receiving and inspection activities shall be trained periodically and are responsible to comply with the requirements and processes identified in this document, and SAE Standards AS5553, AS6081, and inspection standard IDEA-STD-1010.
- 5.2. Purchasing is responsible to procure the correct part/material using the applicable drawing, specification, description, or other information to ensure the product meets the customer’s requirements and the intended use.
- 5.3. Receiving/Inspection is responsible to examine, inspect, and/or control the parts to identify or mitigate the receipt and/or use of counterfeit parts.

6.0 Procedure

The processes shall maximize availability of authentic, originally designed and/or qualified parts and procurement from the Original Component Manufacturer, Authorized/Franchised Distributors or After



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Market Manufacturers throughout the product's life cycle, including management of parts obsolescence. Additional information and guidance for ensuring parts availability is provided in Parts Availability section of AS5553. Should it be necessary to procure products from brokers, non-franchised distributors, unauthorized or unapproved distributors, the customer shall be contacted to determine the required counterfeit risk mitigation testing, inspection, approval requirements BEFORE procuring products from these unauthorized/non-franchised, broker sources.

6.1 VET will investigate potential components for purchase through reporting sources such as ERAI (<https://www.era.com/>) and/or the GIDEP databases (<http://www.gidep.org/>) for alerts of suspect counterfeiting incidents and the life cycle of components.

6.3 Purchasing must examine a potential source of supply to assess the risk of receiving counterfeit parts. Assessment may be a survey, audit, product alert review, and a review of the supplier quality data to verify past performance. The goal is to ensure that approved sources of supply are maintaining effective processes for mitigating the risks of supplying counterfeit parts. If brokers are approved suppliers or sources, they shall be assessed on a yearly basis to ensure they are maintaining effective counterfeit risk mitigation testing, reporting and adherence to industry counterfeit risk mitigation standards SAE AS6081 and SAE AS6171

6.4 Purchasing must maintain a list of approved suppliers along with their scope of approval in order to minimize the risk associated with the supply and/or receipt of counterfeit parts. Brokers will not be used unless authorized by the VET Quality manager and the customer or end user for the product.

6.5 Purchasing shall place a priority on obtaining parts directly from an OCM, approved distributor, authorized resell organization, or franchised aftermarket manufacturer. These companies are reviewed and approved by the original component manufacturer as well as monitored under NWRs vendor approval process. If electronic parts are purchased from Brokers, Non-Franchised Distributors, or Independent Distributors the following minimum test requirements shall be implemented on a lot by lot basis with the following test samples:

- External Visual at 20x, 100% of lot up to 45 pieces sample/lot date code
- Physical Dimensions/Mechanical Inspection 20 pieces sample/lot date code
- XRF/lead finish 3 pieces sample/lot date code

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- Marking Permanency (3 pt. min spirits 1 alcohol, Acetone) 3 pieces sample/lot date code (destructive tests)
- Black Top (1M2P, Dynasolve, Scrape Test) 3 pieces/lot date code (destructive tests)
- Solderability 3 pieces/lot date code (destructive test)
- De-capsulation/Internal Visual at 20x 3 pieces/lot date code (destructive test)
- X-Ray 100% of lot on a lot date code by lot date code basis
- Lead Cross Sectioning for through hole packages 3 pieces/lot date code (destructive test)
- Electrical testing 100% of lot on a lot date code by lot date code basis

Note 1: Purchasing may reference Appendix C of the AS5553 Standard, SAE AS6174A or AC 00-56A (as relevant) for guidelines and information related to Supply Chain Traceability. At a minimum, the OCM, authorized distributor or the aftermarket manufacturer should be required to provide certificates of conformance and acquisition traceability. These certification requirements must be clearly identified on the Purchase Order document as deliverable data.

Note 2: In general, product with electronic components destined for government or military use requires a manufacturer certification, and if procured from brokers, non-franchised distributors, or unauthorized distributors require authenticity testing to be reviewed, approved by the customer.

Note 3: When procuring products from brokers, independent distributors, non-authorized, or non-franchised distributors, only product authenticity testing will be done. The specific requirements for the product may be identified from a review of the Customer purchase order, specification, or flow-down requirements. It is always prudent for purchasing to request certification and traceability data as a deliverable item and require counterfeit risk mitigation testing per AS5553 and AS6171 if procuring from other than the OCM or their Authorized Distributors, even if not specifically required by the customer.

6.6. Purchasing in consultation/coordination with Engineering, Supply Chain Management Leadership, and Quality Assurance must specify the customer's Counterfeit Risk Mitigation and Prevention (e.g. Note: For Raytheon PO terms and conditions TC-001 section 30) and applicable warranty requirements for new, unused, no refurbished items in customer's Terms and Conditions flow-down requirements and from the Counterfeit Parts Procedure applicable to the supplier or subcontractor. Purchasing must perform some level of risk assessment if the supplier or subcontractor does not maintain a documented counterfeit part control plan compliant to the DFARS 252.246.7007 and 7008, AS5553 and SAE AS6174A standards.



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6.7. The Purchase Order must specify to the supplier the applicable requirements of the Counterfeit Part Procedures. In order to minimize the risk of procuring counterfeit parts the Purchase Order shall include requirements to ensure conforming, original, and authentic parts are provided. The Purchase Order may list requirements for certification and traceability; deliverable record of test and/or inspection results; and quality management system requirement for the supplier. For procurements from other than the OCM or the Authorized Distributor(s), the Purchase order must include authenticity testing per customer approved counterfeit risk mitigation test plan.

6.8. Persons receiving, inspecting, or processing parts/material must examine the product to ensure the drawing, specification, type, class, style, part number, manufacturer, Certificate of Conformance or other related information is present to detect or identify suspect or counterfeit parts. Suspect or counterfeit parts shall be dispositioned per customer or government end user requirements and not be returned to the supply chain and shall be recorded on Form #F310, Non-Conforming Materials Report. If items are determined to be counterfeit, or are considered suspect counterfeit, items are NOT to be returned to supplier, since that may make the counterfeit product available for sale to another party. Any suspect or confirmed counterfeit parts should be destroyed.

Nonconforming Material Report - Used so the items may be identified and segregated, and dispositioned in accordance with VET's QP 8.3-1, Nonconformance Control quality procedure.

6.9 VET will report any findings of suspect counterfeit and counterfeit parts in the form of a VET internal rejection report to the applicable customer and both the ERAI and GIDEP databases.