

# Counterfeit Electronic Component Prevention and Avoidance

*GQAI 7.4-1*

*Effective date: February 2019*

*Owner(s): Supply Chain*

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## 1.0 Purpose

The purpose of this procedure is to outline HDT Expeditionary Systems, Inc. (HDT) processes for the avoidance, detection, risk mitigation and disposition of suspect and/or confirmed counterfeit electronic components. These processes are designed to prevent the introduction of counterfeit material into HDT products and reduce the risk of passing counterfeits through to our customers.

## 2.0 Scope

The scope of this procedure includes both directly-purchased electronic components (specifically microchips) and assemblies with embedded electronic components. The procedure is applicable to all HDT sites.

## 3.0 References

Reference Number	Description
Site Specific Level III	Control of Nonconforming Product Procedures
AS5553	Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition
DCMA-INST 1205	Counterfeit Mitigation
DFARS 252.246-7007	Contractor Counterfeit Electronic Part Detection and Avoidance System
DFARS 252.246.7008	Sources of Electronic Parts
HDTP 000010	Denied Party Screening Policy

## 4.0 Definitions

- 4.1 **Counterfeit Electronic Part** – means an unlawful or unauthorized reproduction, substitution, or alteration that has been knowingly mismarked, misidentified, or otherwise misrepresented to be an authentic, unmodified electronic part from the original manufacturer, or a source with the express written authority of the original manufacturer or current design activity, including an authorized aftermarket manufacturer. Unlawful or unauthorized substitution includes used electronic parts represented as new or the false identification of grade, serial number, lot number, date code, or performance characteristics. Counterfeit electronic parts include but are not limited to:
  - 4.1.1 Parts which do not contain the proper internal construction (die, manufacturing, wire bonding, etc.) consistent with the ordered part;
  - 4.1.2 Used, refurbished, or reclaimed parts represented as new product;

- 4.1.3 Parts with a different package style, type, or surface plating / finish than the required or order product;
- 4.1.4 Parts not successfully completing the full production and/or test flow of the Original Equipment Manufacturer (OEM) that are represented as completed product;
- 4.1.5 Parts sold or delivered as up-screened product that has not successfully completed the up-screening process;
- 4.1.6 Parts sold or delivered with modified labeling or markings intended to misrepresent the form, fit, function, or grade of the intended product.
- 4.2 **Suspect Counterfeit Electronic Part** – means an electronic part for which credible evidence (including, but not limited to, visual inspection or testing) provides reasonable doubt that the electronic part is authentic.
- 4.3 **Authorized Supplier** – means a supplier, distributor, or an aftermarket manufacturer with a contractual arrangement with, or the express written authority of, the original manufacturer or current design activity to buy, stock, repack, sell, or distribute the part.
- 4.4 **Independent Distributor** – For these distributors, there is often no product warranty or legal validation indicators to ensure items conform to original manufacturer specifications. Also, technical pedigrees to verify component authenticity may not be provided. Independent distributors usually do not possess control over the items and the chains of custody cannot always be verified. These suppliers are not franchised by the original equipment manufacturer.
- 4.5 **HDT Approved Supplier** – Suppliers who have been assessed and determined trustworthy by HDT Supply Chain Management.
- 4.6 **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, lot and/or date code, etc., and is signed by a responsible individual.
- 4.7 **Broker** – In the independent distribution market, brokers may be referred to as an Independent Distributor.
- 4.8 **Original Component Manufacturer (OCM)** – an organization that designs and/or engineers a part and is entitled to any intellectual property rights to the part.
- 4.9 **Original Equipment Manufacturer (OEM)** – a company that manufactures products that it has designed from purchased components and sells those products under the company's brand name.
- 4.10 **Authorized Aftermarket Manufacturer** – an organization that fabricates a part under a contract with, or with the express written authority of, the original component manufacturer based on the original component manufacturer's designs, formulas, and/or specifications.
- 4.11 **Visual Compliance™** – an online subscription site ([www.visualcompliance.com](http://www.visualcompliance.com)) used to complete denied party screenings. Visual Compliance provides instantaneous results that are accurate and easy to interpret. Employees can access Visual Compliance directly through the website after an account has been created. Please contact Trade Compliance to request an account.
- 4.12 **GIDEP** – Government-Industry Data Exchange Program

## 5.0 Procedure

- 5.1 HDT will only obtain parts directly from an OCM/OEM, Authorized Suppliers, Authorized Aftermarket Manufacturers and HDT Approved Suppliers.
- 5.2 HDT vets our suppliers and other representatives by clearing them through the United States Government's SAM.gov (System for Award Management). In addition, HDT uses an outside vendor (e.g., Visual Compliance) to conduct background searches to clear out any debarred entities.
- 5.3 As feasible, potential new vendors are audited by the Supply Chain and/or Quality team – either at the manufacturing location or via self-assessment. Specific attention is paid to counterfeit electronic component prevention and avoidance policies.
- 5.4 An HDT Approved Supplier List is maintained in our Material Requirements Planning System. We monitor approved suppliers for suspect or confirmed counterfeit incidents via regular observation and review of GIDEP (Government-Industry Data Exchange Program) alerts.

- 5.5 Our current procurement processes communicate and flow down all applicable engineering, manufacturing and quality requirements associated with purchased components to our suppliers. Requirements may include test and inspection as applicable.
- 5.6 HDT may request that suppliers have a documented Counterfeit Electronic Part Avoidance and Detection Program. If a supplier does not have such a program, HDT will work with the supplier to develop and publish one. Additionally, HDT Supply Chain will review – at a minimum, quarterly – alerts and bulletins to maintain open communication with our suppliers regarding component quality concerns, vendor product hold notifications, etc. It is our intent to inform and involve our supply chain in any scenario that has potential to affect our product quality or disrupt the supply chain.
- 5.7 HDT may procure parts from an independent distributor or part broker only as a last resort. Prior to buying parts from these sources, Supply Chain Management must review the proposed purchase to receive approval from the Vice President of Supply Chain Management and the Corporate Director of Quality. Supply Chain must also contact Engineering and Program Management to determine if the customer must be contacted and approval sought as outlined by the contract. If customer approval is contractually required, the documented approval will be filed with the associated purchasing records.
- 5.8 HDT flows down counterfeit material prevention directives (including reporting of suspect or confirmed counterfeit components) to our electronics component suppliers. All flow-downs shall be communicated as required at all sub-tier supplier levels. Based on component or assembly type and supplier controls surrounding electronic counterfeit components, risk levels will be assigned for electronics vendors and records maintained by Supply Chain Management. (Example: See Appendix A.)
- 5.9 Supply Chain Management reviews and includes a copy of Visual Compliance report for all supplier orders in accordance with HDT's Denied Party Screening Policy.
- 5.10 When availability or obsolescence risks are identified, Supply Chain Management will manage supply availability by exploring opportunities for lifetime buys, alternate / multiple sources, development of new items or sources, engineering redesign or other appropriate mechanisms to proactively reduce the risk of exposure to suspect or confirmed counterfeit parts.
- 5.11 Standard purchase order language to suppliers shall include: *“Seller shall certify that only new and authentic materials are used in products delivered to HDT. Seller further certifies that only parts purchased directly from Original Component Manufacturers (OCMs), authorized manufacturers or OCM franchised distributors are used in products delivered to HDT. Use of product not provided by these sources is not authorized unless first approved in writing by HDT and Seller must present compelling support for its request, which includes all planned actions to ensure the parts thus procured are authentic / conforming parts (including traceability to the OCMs).*  
*Furthermore, should the seller encounter suspect or confirmed counterfeit components at any stage of procurement or manufacturing materials for HDT, Seller certifies that it will notify HDT of such an event within ten (10) days of the occurrence of that event.”*
- 5.12 Receiving inspection – Certificates of Conformance and documentation of test results may be requested from electronics component suppliers. As applicable, Quality may also perform a receiving inspection. This inspection may include visual evaluation of microprocessors for correct identification and evidence of remarking (or ‘top coating’). Items procured from Independent Distributors must be inspected at Receiving.
- 5.13 Quarantine of Suspect Electronic Counterfeit Parts – In a similar manner to other nonconforming material, all Suspect Electronic Counterfeit Parts shall be treated as defined in HDT's Control of Nonconforming Product procedure.
- 5.14 Training – Counterfeit electronic part awareness training is a requirement for all Supply Chain Management, Quality and Production personnel who may interact with electronic components and assemblies.
- 5.15 Reporting – If HDT becomes aware of, or has reason to suspect that, any electronic part for delivery to DoD contains Counterfeit Electronic Parts or Suspect Counterfeit Electronic Parts, HDT shall report the finding to GIDEP. HDT will make all reasonable efforts to cooperate in the investigation of the incident until closure.
- 5.16 Auditing – HDT will perform internal audits to ensure compliance to this procedure.

## 6.0 Responsibilities

- 6.1 All HDT employees are responsible to comply with the requirements and processes identified in this document. Engineering, Supply Chain Management, Operations, Compliance and Quality Assurance staff may have specific roles and/or actions as it relates to complying with the requirements identified in this document.
- 6.2 Engineering is responsible to ensure the drawing, specification, process, or other description identifies the part number, manufacturer, or other related information so the correct part or product is identified.
- 6.3 Supply Chain Management is responsible to procure the correct electronic part using the applicable drawing, specification, description, or other information to meet the intended use, from authorized sources. They are also maintaining the HDT Approved Supplier list, post-award management of suppliers, on-going vendor risk assessment and mitigation, material traceability and required reporting.
- 6.4 Compliance assists the other HDT departments with ensuring the HDT Counterfeit Electronic Parts Detection and Avoidance Program (“HDT Counterfeit Electronic Parts Program”) complies with all applicable legal and regulatory requirements. Compliance also may conduct period audits of the HDT Counterfeit Electronic Parts Program.
- 6.5 Quality is responsible for conducting electronic parts tests and inspections, and generation and administration of inspection and test procedures including inspection records, as required.

## 7.0 Records

Records shall be maintained as follows (see Control of Records Procedure for retention periods):

Record	Custodian
Supplier vetting records	Supply Chain Management
Approved supplier listing with scope	Supply Chain Management
Supplier surveys and audits	Supplier Chain Management / Quality
Receiving inspection results	Quality
Training records associated with this procedure	Responsible Manager / HR

## 8.0 Revision History

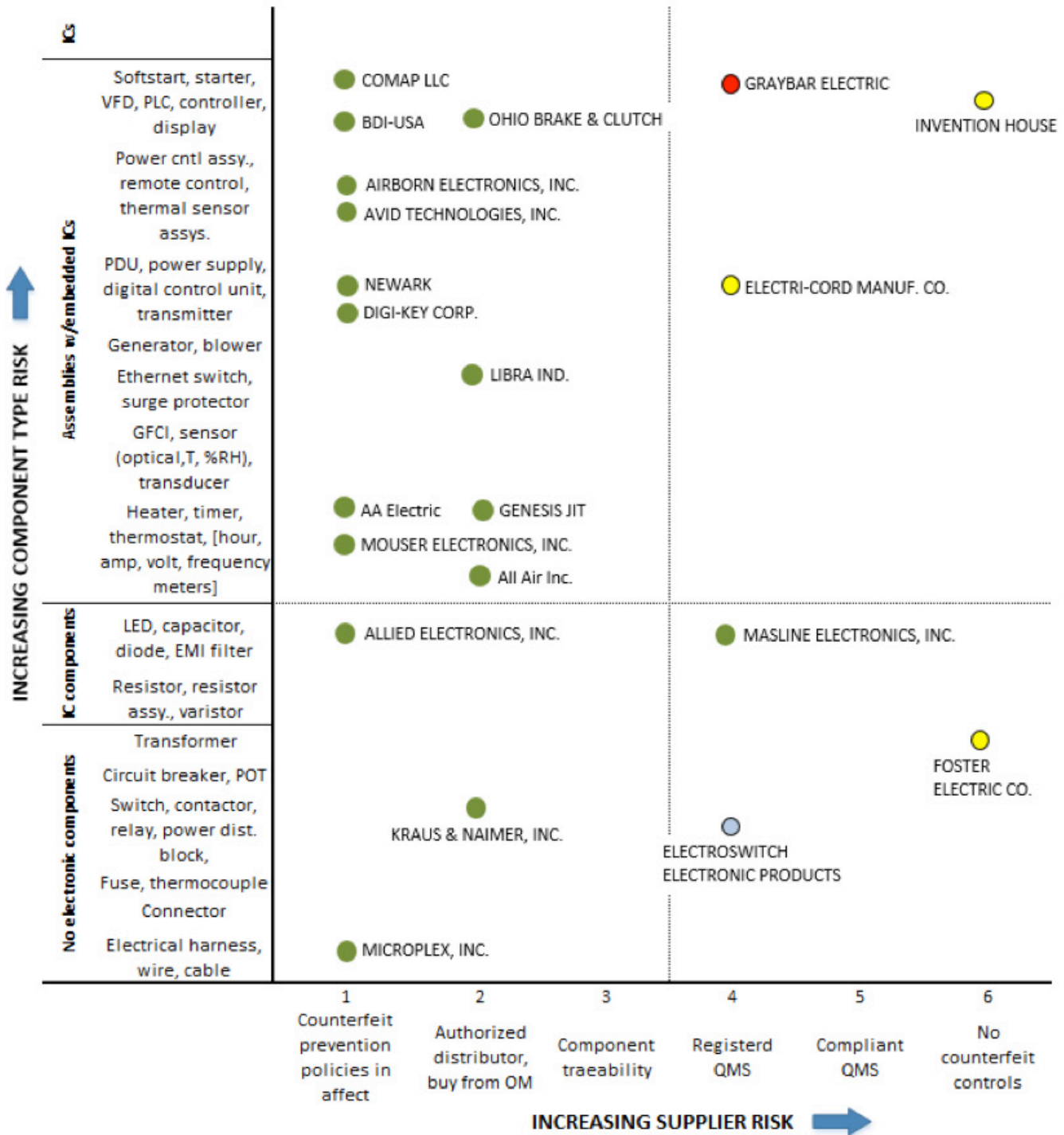
Date	Revision	Description	Responsible Person
7.14.2016	Original	Initial release	B. Moon
8.24.2018	2	Minor policy updates	S. Weber / Garlesky

## 9.0 Approvals

	Date	Name	Title	PDM Signature
Edited by	8.24.2018	Suzanne Weber	Corporate Quality Director	
Reviewed by	02.05.2019	Suzanne Weber	Corporate Quality Director	
Approved by	02.20.2019	Andrew Youngberg	Director of Supply Chain	

# Appendix A1

## Electronic Component & Supplier Controls Risk Matrix (Vendors A-0)



# Appendix A2 Electronic Component & Supplier Controls Risk Matrix (Vendors A-0)

