

Counterfeit Parts Avoidance Requirement for Independent Distributors and High Risk Suppliers

Table of Contents

1.0 Purpose / Scope / Timing	2
1.1 Responsible Roles	2
1.2 Compliance Date.....	2
2.0 Procedure / Quality Record Requirements	3
2.1 Purchase Orders.....	3
2.2 Traceability Documentation	3
2.3 Inspections and record retention.....	5
2.4 Quality Records (if applicable).....	6
3.0 Definitions, Acronyms and References	8
4.0 Document Revisions and Approvals.....	9



Counterfeit Parts Avoidance Requirement for Independent Distributors and High Risk Suppliers

1.0 Purpose / Scope / Timing

Due to increasing global concerns over the potential of counterfeit components it is necessary to establish controls to mitigate the risk of these components entering the GE Energy Connections' supply chain. When there is a need to purchase components from non-franchised distributors or supplier with high counterfeit part risk, then such purchases undergo careful evaluation to ensure the components are authentic, new and previously unused parts.

This document is applicable for all active and passive component parts supplied to GE Energy Connections from non-franchised distributors or supplier with high counterfeit part risk.

1.1 Responsible Roles

- Supplier
 - Supplier is solely responsible for carrying out all necessary verification tests to ensure that the components supplied to GE Energy Connections meets the requirements of the Purchase Order and that the components are authentic, new and previously unused.

1.2 Compliance Date

- Full compliance is required at the time of issuance of this document.



Counterfeit Parts Avoidance Requirement for Independent Distributors and High Risk Suppliers

2.0 Procedure / Quality Record Requirements

2.1 Purchase Orders

- 2.1.1 The Purchase Order issued by GE will detail the following
- GE Energy Connections Internal Part number
 - Original Component Manufacturer
 - Original Component Manufacturers Part Number
 - Quantity required
 - Verification tests required (when applicable)
 - Any other conditions relevant to the order Sub-requirement
- 2.1.2 The Purchase Order shall be amended if any of the above changes.

2.2 Traceability Documentation

- 2.2.1 The Supplier shall confirm that, where possible, the Certificate of Conformance from the Original Component manufacturer along with the full supply chain history of the components will be provided with the order.
- 2.2.2 If full supply chain traceability documentation cannot be provided, then the Supplier shall perform verification tests on randomly selected samples, to establish that the components are authentic, new and previously unused as ordered by GE Energy Connections.
- 2.2.3 The sample size for non-destructive verification tests shall be:

Quantity Required	Sample Size
1-5	All
6-25	6
26-50	8
>50	10% or as agreed by GE EC SQE



GE Energy Connections
Quality Management System

**Counterfeit Parts Avoidance
Requirement for Independent
Distributors and High Risk
Suppliers**



Uncontrolled when Printed
or
Transmitted Electronically

GE Proprietary
Page 4 Of 9
EC-SRC-0008 Rev: 2.0

Counterfeit Parts Avoidance Requirement for Independent Distributors and High Risk Suppliers

2.2.4 Electronic Part's Verification tests must include the following :

Non-Destructive test at minimum need to meet IDEA 1010B and:

- Review of data deliverables.
- Inspection of the incoming packaging.
- Verification of the component markings.
- Visual inspection, under microscope, of component leads or Ball Grid Arrays.
- Visual inspection, under microscope, of component surfaces.
- Package dimensions & pin count.
- Acetone test for evidence of blacktopping.
- X-Ray of sample parts to ensure consistent die & bond wire pattern exists.
- XRF analysis on one part from each different date and/or lot code to ensure lead finish is as per manufacturers' requirements.

Destructive Test

- Solderability test performed on one part from each different date and/or lot code in accordance with J-STD-002.
- De-capsulation of one part from each different date and/or lot code.

2.2.5 Any additional testing will be defined by GE Energy Connections at time of order placement and be detailed in the Purchase Order.

2.2.6 The results from the verification tests, including any test & verification reports from independent test houses, shall accompany the parts when delivered to GE Energy Connections.

2.3 Inspections and record retention

2.3.1 Inspection shall be performed by personnel trained in the identification and detection of counterfeit components.

2.3.2 Records of such training shall be documented and available for inspection by representatives of GE Energy Connections or customers of GE Energy Connections.



Counterfeit Parts Avoidance Requirement for Independent Distributors and High Risk Suppliers

- 2.3.3 A record of all the inspection undertaken by the vendor shall be recorded using GE EC form 7.4.3-EC-F002 or equivalent form approved by GE Energy Connections
- 2.3.4 The supplier shall retain all records for a period of not less than 10 years from acceptance of components. Records may be periodically subject to review/audit by GE Energy Connections personnel.
- 2.3.5 GE Energy Connections, their customer, and regulatory authorities have the right of access to all facilities involved in the order and to all applicable records.

2.4 Delivery Documentation

Each delivery to GE Energy Connections will be accompanied by a Vendor Certificate of Conformance detailing:

- GE Energy Connections Internal Part number
- GE Energy Connections Purchase Order number
- Original Component Manufacturers company name
- Original Component Manufacturers Part Number
- Date Code of parts
- Lot code of parts
- Quantity delivered

In addition, each delivery shall also be accompanied by:

- Completed vendor inspection record

AND either

- Original Component Manufacturers' Certificate of Conformance along with Full Supply Chain History

OR

- Verification test results (as applicable), along with any de-capsulated parts

2.5 Packaging

- 2.5.1 For Electronic Parts, all packing materials shall be either conductive or antistatic, including tubes, trays, reels, bags and fillers.



Counterfeit Parts Avoidance Requirement for Independent Distributors and High Risk Suppliers

2.5.2 For Electronic parts, handling, storing, re-baking, re-bagging, packaging and shipping of moisture/reflow sensitive devices shall be compliant to J-STD-033.

2.5.3 Other packaging requirement shall meet or exceed industry standard

2.6 Acceptance

2.6.1 All components ordered within the purchase order shall be subject to stringent counterfeit inspection procedures by GE Energy Connections including, where necessary, independent verification.

2.6.2 Where such components are deemed as counterfeit by GE Energy Connections, the Supplier will be duly notified and the affected components will be returned to the Supplier.

2.6.3 Furthermore, the vendor hereby warrants that they have appropriate process to ensure that all components returned as counterfeit will not re-enter the supply chain.

Note: GE Energy Connections also reserves the right to remove the vendor from its approved sources of supply listing and to notify other companies within the General Electric Corporation when we have a verified counterfeit part.

2.7 Corrective Actions

2.7.1 Where a delivery is deemed to be suspect/counterfeit and the vendor has been duly notified, a Supplier Corrective Action Request will be issued to the vendor. The vendor must investigate and respond to the Corrective Action Request. The response also include a root cause analysis along with corrective and preventive actions (including containment of the counterfeit part).

2.8 Quality Records (if applicable)

The following records produced by this procedure are considered Quality Records and maintained and controlled according to the requirements in [EC-SRC-0002 Supplier Quality requirement](#) unless otherwise indicated:

- Training Record
- Delivery Documentation
- Counterfeit notification
- Corrective action request
- Certificate of conformance from OCM



Counterfeit Parts Avoidance Requirement for Independent Distributors and High Risk Suppliers

- Test report
- QMS document to manage counterfeit and suspect part
- Quality certification (eg: ISO 9001, AS9100)

3.0 Definitions, Acronyms and References

References:
7.4.3-EC-F002



Counterfeit Parts Avoidance Requirement for Independent Distributors and High Risk Suppliers

4.0 Document Revisions and Approvals

The following chart lists the revisions made to this document tracked by version. Use this to describe the changes and additions each time this document is re-published. The description should include as many details of the changes as possible.

Records of Reviewers and Approvers may be found within the DMS (Document Management System).

Version	Section Modified and Revision Description	Date	Author
1.0	New Issue.	09/10/2014	Arianto Lawardi, Scott Tarpley
2.0	Replace Energy Management with Energy Connections	07/08/2016	Arianto Lawardi

Title: Counterfeit Parts Avoidance Requirement for Independent Distributors and High Risk Suppliers
Reference: EC-SRC-0008
Revision: 2.0
Application Date: 07/08/2016
Expiration Date: 07/08/2019

