



**Title: Arrow Supplier Quality Requirements**

Approved By: Justin Rianda

**1 Applicability**

- 1.1 Arrow's quality requirements are applicable to all purchased product unless otherwise specified in the purchase order.
- 1.2 Written approval from Arrow is required for any exceptions to the requirements listed in this document and must be received prior to purchase order acceptance.

**2 Certificate of Conformance**

- 2.1 Suppliers will provide a certificate of conformance (C of C) or packing list with each shipment. The following items should be clearly noted:
  - 2.1.1 Arrow's name and address
  - 2.1.2 Manufacturer's name and address
  - 2.1.3 Arrow's purchase order (PO) number
  - 2.1.4 Manufacturer's part number (and revision when applicable)
  - 2.1.5 Customer drawing number and revision (when applicable)
  - 2.1.6 Quantity
  - 2.1.7 Date Code
  - 2.1.8 Lot code
  - 2.1.9 Signature of authorized company representative
- 2.2 When applicable, the Supplier will provide a statement of conformance to any manufacturer, government, industry, or drawing specification.

**3 Corrective Action / Failure Analysis**

- 3.1 Supplier will provide corrective action upon request from Arrow.
  - 3.1.1 The required response date is indicated on the request.
  - 3.1.2 Arrow maintains the right to reject or accept the corrective action response.
- 3.2 Supplier will provide failure analysis upon request from Arrow.
  - 3.2.1 Arrow maintains the right to review and accept the rejection report and may request clarification on behalf of the customer.

**4 Counterfeit Parts**

- 4.1 Supplier shall establish and maintain a Counterfeit Prevention program/plan using AS-5553 and/or AS6174 (Ref. elements of Section 3) or equivalent to ensure that Counterfeit Work is not delivered to Arrow. The purpose of Supplier's Plan shall be to document a robust, risk-based process to prevent the delivery of and to control counterfeit or suspect counterfeit parts/materials. The plan shall document the processes used to prevent, detect, mitigate, disposition, and report suspected or confirmed counterfeit parts/materials or assemblies containing same.
  - 4.1.1 For purposes of this clause, Work consists of those parts/materials delivered under the purchase order that are the lowest level of separately identifiable items (e.g., articles, components, standard hardware, goods, raw materials, and assemblies). "Counterfeit Work" means Work that is or contains unlawful or unauthorized reproductions, substitutions, or alterations that have been knowingly mismarked, misidentified, or otherwise misrepresented to be an authentic, unmodified 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



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unauthorized substitution includes used Work represented as new, or the false identification of grade, serial number, lot number, date code, or performance characteristics. "Suspect Counterfeit Work" means Work for which credible evidence (including, but not limited to, visual inspection or testing) provides reasonable doubt that the Work part is authentic.

- 4.1.2 Supplier shall only purchase parts/materials to be delivered to Customer as Work directly from authorized sources of supply. Authorized sources of supply include the Original Component Manufacturer (OCM), the Original Equipment Manufacturer (OEM); the OCM/OEM authorized distributor chain, and sources with the express written authority of the OCM/OEM or current design activity, including original raw material and/or hardware manufacturers, authorized aftermarket manufacturers, approved suppliers, authorized resellers, authorized suppliers, and the manufacturer-authorized distributors.
- 4.1.3 Supplier shall notify Arrow Quality of the pertinent facts of a nonconformance in accordance with ASQ 01A Paragraph 9, if Supplier becomes aware or suspects that it has furnished Counterfeit Work. Suspect Counterfeit Work shall be treated as Nonconforming Items as they relate to the notification process in accordance with ASQ 01A Para 9.
- 4.1.4 Supplier shall notify Arrow Quality if components required to fill an Arrow purchase order cannot be procured through authorized sources (refer to 4.1.2). Arrow will work with supplier to determine a mutually agreeable source.
- 4.1.5 Supplier shall include this clause or equivalent provisions in lower tier subcontracts for the delivery of parts/materials that will be included in or furnished as Work to Arrow or Arrow's Customers.

## **5 Calibration**

- 5.1 Supplier will maintain a documented calibration system for the calibration and maintenance of tools, jigs, inspection, and test equipment. Supplier will have and maintain a calibration system compliant to ISO 17025, ISO10012-1, MIL-STD-45662, or ANSI/NCSL Z540-1.

## **6 ESD/MSD Products**

- 6.1 Supplier will maintain an electro-static discharge (ESD) risk mitigation program for all ESD sensitive material they manufacture.
- 6.2 The ESD program must be equivalent to the following standards: MIL-STD-1886, EIA JESD625, or ANSI/ESD S20.20.
- 6.3 Supplier will adhere to IPC/JEDEC J-STD-033 standard for the handling and storage of all moisture sensitive devices (MSD).

## **7 Flow Down**

- 7.1 All appropriate Arrow and/or Arrow's Customer purchase order (PO) information/requirements must be flowed to the Supplier's sub-tier suppliers.

## **8 Foreign Object Debris (FOD)**

- 8.1 Supplier will maintain a Foreign Object Debris (FOD) program.
- 8.2 The Supplier's FOD program must meet the following requirements:
  - 8.2.1 Product will be protected from contamination or damage from foreign objects during processing, testing, inspection, handling, and packaging prior to delivery to Arrow.

- 8.2.2 Foreign object debris may include, but is not limited to dirt, dust, food particles, scraps of labels/paper/tape, scissors, pens, pencils, utility knives, paper clips, binder clips, tape dispensers, etc.

## 9 Non-Conforming Product Notification

- 9.1 Suppliers will provide non-conforming product notification to Arrow Quality and the Arrow buyer for any product reliability or performance issues related to purchase orders delivered to Arrow or shipped directly to the Customer on Arrow's behalf.

## 10 Part Substitution

- 10.1 Part substitutions to product specified in a purchase order are not permitted without written approval from an Arrow buyer (or Arrow's Customer when applicable).

## 11 Product Change Notification

- 11.1 Suppliers will provide reasonable and sufficient timely notice to Arrow Quality, the Arrow buyer and [epcn@arrow.com](mailto:epcn@arrow.com) for the following:
- 11.1.1 Product Change Notification (PCN): A formal notification by the manufacturer that they have implemented a change in the affected devices or product families. Examples of changes that would result in the issuance of a PCN are as follows: Assembly Process or Site, Form-Fit- Function, Labeling or Packing, Marking, Molding, Product Families, Shipping/Packing Materials, Test Process or Site, and Wafer Process or Site. This would also include end of life notification or notice of obsolescence.
  - 11.1.2 Product Alert: A formal notification by the manufacturer or Arrow (on product we perform value added services) that a problem or high failure rate has been identified with the devices or product families already manufactured or assembled and shipped to customers. The problem or failure may or may not affect the end user and generally depends on the application in which the Customer uses the device. A Product Alert may be serious enough to result in the recall of the affected product.
  - 11.1.3 GIDEP Alert / Advisory- A formal notification issued through the government industry data exchange program that advises GIDEP subscribers about a possible problem or issue related to a specific device or range of devices. Such notifications do not always result in product recall.
  - 11.1.4 Product Recall Notice: A Product Alert in which the severity of the problem or failure is such that a recall of the product is requested due to the likelihood of the affected product causing failure regardless of the customer's application or end use.

## 12 Product Packaging

- 12.1 Supplier must provide the following:
- 12.1.1 Necessary protection of all products is provided to prevent damage, loss, deterioration, or substitution, including product packaging in a manner and with materials necessary to prevent deterioration, corrosion, or electrostatic discharge (ESD) damage. Products that require storage are protected against deterioration and damage. Provisions are in place for cleaning, prevention, detection, removal of foreign objects and special handling of hazardous material. The storage locations of all products are controlled within the building by use of environmental controls including temperature and humidity control through the building infrastructure.

## 13 Quality System

- 13.1 Suppliers that are third party registered to the ISO 9001 or AS9100 quality management systems by an accredited third- party certification body are considered acceptable suppliers. Suppliers must provide proof of certification upon request or maintain public access to the



certification online.

#### **14 Record Retention**

- 14.1 Records are established and maintained to provide evidence of conformity to the requirements of the purchase order.
- 14.2 Records will be maintained to demonstrate conformance to specified requirements of the purchase order. Pertinent records from the subcontractors and customer-specific records shall be an element of these requirements.
- 14.3 Records are readily available to those who are required to review them, including customers, suppliers, and regulatory agencies.
- 14.4 Record retention period:
  - 14.4.1 Commercial off the shelf (COTS) product – 4 years
  - 14.4.2 Military product – 7 years

#### **15 Right of Access**

- 15.1 The Supplier will provide right of access by Arrow, Arrow's Customer, government agencies, and regulatory authorities to the applicable areas of all facilities, at any level of the supply chain, involved in the order and to all applicable records.

#### **16 Applicable Arrow Policy References**

- 16.1 [QOP 07A - Supplier labeling and Packaging Specification](#)
- 16.2 [QOP 10A - Supplier Scorecard Review/External Supplier Procedure](#)
- 16.3 [QOP 14A - Subcontractor Quality Requirements](#)
- 16.4 [QOP 19A - Supplier Corrective Action Request](#)