1.0 PURPOSE

The purpose of this document is to describe the procedure for preventing the purchase and/or use of counterfeit parts and to meet the requirements of AS5553, AS6174 Standards and related customer requirements.

2.0 SCOPE

This document applies to procurement activities at CIRCOR Aerospace, Inc., (CAI) where applicable and to the extent specified herein.

3.0 DEFINITIONS / ACRONYMS

3.1 Suspect Part – A part in which there is an indication by visual inspection, testing, or other information indicating the item may have been misrepresented by the external provider or manufacturer and may in turn meet the definition of a Counterfeit Part.

3.2 Counterfeit Part – A suspect part identified as a copy or substitute without the legal right or authority to do so or a part whose material, performance, or characteristics are knowingly misrepresented by an external provider in the supply chain, including the lowest level of separately identifiable items. Counterfeit Part include but are not limited to:

- Parts not containing the proper internal construction that is consistent with the desired, producer, or ordered part.
- Used, refurbished, or reclaimed parts represented as new product.
- Parts with a different package style, type, or surface plating / finish than the required or order product.
- Parts not successfully completing the full production and / or test flow of the Original Component Manufacturer (OCM) or Original Equipment Manufacturer (OEM) that are represented as completed product.
- Parts sold or delivered with modified labeling or markings intended to misrepresent the form, fit, function, or grade of the intended product.

3.3 Aftermarket Manufacturer – A manufacturer meeting one or more of these criteria:

- A manufacturer authorized by the OCM / OEM to produce or provide replacement parts. The parts supplied are produced from originating from the OCM / OEM to the aftermarket
- Manufacturer or parts produced by an aftermarket manufacturer using the OCM / OEM tooling or intellectual property.
- The manufacturer produces parts using tooling or equipment manufactured by and traceable to an OCM / OEM that was properly stored until use. The parts are subsequently assembled, tested, and qualified using processes meeting the technical specifications without violating the intellectual property rights, patents, or copyrights of the OCM / OEM.
- The manufacturer produces parts by emulation, reverse engineering, or redesign using processes matching the OCM / OEM specification. The parts must meet the customer needs without violating the OCM / OEM intellectual property rights, patents, or copyrights.

Note: The Aftermarket manufacturer must label or otherwise identify the parts to ensure the “as shipped” product is not mistaken for the product manufactured by the OCM / OEM.

3.4 Approved Supplier – External providers who are formally assessed and determined to have a low risk of providing counterfeit product.

Approved Distributor – A distributor, approved by document from OEM/OCM, that provides OEM/OCM products to customer.

3.5 Authorized Supplier – Aftermarket manufacturers and OCM / OEM authorized sources of supply for a specific part.

3.6 Broker – In the independent distribution market, brokers are professionally referred to as an Independent Distributor.

3.7 Certificate of Conformance (C of C) – A document provided by the external provider 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 external provider.

Certificate of Conformance and Supply Chain Traceability – A Certificate of Conformance required by certain military specifications which requires documented supply chain traceability from the Qualified Parts List/ Qualified Manufacturers List (QPL/QML) manufacturer through delivery to a government agency if the material is not procured directly from the approved manufacturer.

3.8 Used – Electrically charged parts pulled / removed from a previous application. Receiving and Receiving Inspection should be wary of nonstandard packaging, mixed lots, mixed 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.

4.0 RESPONSIBILITIES

CAI is responsible for promptly replacing any counterfeit work delivered to a customer with genuine work acceptable to the customer that conforms to contract requirements, including the removal and replacement of such work. At a customers' request, CAI shall return any removed counterfeit parts to the customer in order that the customer may turn such parts over to its Government customer for further investigation.

4.1 Purchasing is responsible to procure the correct part using the applicable drawing, specification, description, or other information to meet the intended use.

4.1.1 Purchasing shall specify on contracts and/or purchase orders for electrical/electronic parts per paragraph 5.7 the requirements for supply chain traceability. Identify the name and location of all supply chain intermediaries from part manufacturer to direct source of producer for seller. If supply chain traceability is unavailable, a documented risk assessment is required.

4.1.2 Purchasing shall specify a written disclosure, at each individual quotation, as to whether the source is authorized/franchised for the electrical/electronic parts being quoted and whether the source is providing full manufacturer's warranty on the quoted parts.

4.1.3 Purchasing shall document counterfeit avoidance assessment criteria, assess potential electrical/electronic parts external providers for risk of receiving fraudulent/counterfeit parts and maintain records or external providers that have met the counterfeit avoidance assessment criteria.

4.1.4 Purchasing shall assure that approved/ongoing external providers are maintaining their counterfeit avoidance processes and practices.

4.2 Engineering is responsible to ensure the drawing, specification, process, or other description identifies the applicable type, class, style, part number, manufacturer, or other related information so the correct part or product is identified.

4.3 Material is responsible for the examination, selection, kitting, and/or identifying the parts to mitigate receipt and/or use of counterfeit parts.

4.4 Quality is responsible for inspecting parts to identify whether or not they are counterfeit and for ensuring parts delivered under contract are not and/or do not contain counterfeit parts.

4.5 The Director of Materials is responsible for maintaining the accuracy of this document and for the correct implementation of its key provisions.

5.0 PROCEDURE

5.1 Planning, Engineering, and Purchasing shall assess the availability of original or authentic product in support of manufacturing. To reduce the risk associated with counterfeit parts lifetime buys, multiple supply sources, and part substitutions may be considered.

5.2 Purchasing shall examine a potential source of supply to assess the risk of receiving counterfeit parts. Assessment may be a check against the Approved Supplier List (ASL), survey, audit, product alert review, and a review of the external provider quality data to determine performance.

5.2.1 Purchasing shall document a risk assessment and risk mitigation plan, specific to intended application, for each procurement other than from an OCM/OEM or authorized external provider.

5.2.2 Purchasing shall document risk assessment for any external provider or subcontractor that does not maintain a documented counterfeit part control plan compliant to the AS5553 Standard. In the event the external provider or subcontractor cannot/will not provide a documented counterfeit part control plan, they will be considered for exclusion from providing parts.

5.3 Planning, Engineering, Quality and Purchasing shall assess and disposition supplied electrical or electronic parts that may be/are determined to be obsolete.

5.4 Supplier Quality shall identify on the ASL (via the PB checklist) any external provider that is a CAI unapproved independent distributor or part broker which cannot be used for military or Government purchases.

5.5 Purchasing may not buy any electrical, electronic and electro-mechanical parts from other than the OCM / OEM or their approved/franchised distributor.

Note: Some customers maintain a list of external providers, OEMs, and other approved sources for component parts.

5.6 Supplier Quality shall assure sources of supply maintain effective process controls to mitigate the risk of supplying counterfeit parts. Such assurance may be a survey, audit, product alert review, or a CAI review of the external provider quality data to verify performance.

5.7 Purchasing shall specify that the OCM / OEM or aftermarket manufacturer provide traceability requirements (identify the name / location of all supply chain intermediaries from the part manufacturer to the direct source of the product to the seller) when required.

5.7.1 At a minimum, a certificate of conformance and acquisition traceability is required back to OCM/OEM. These certification requirements must be clearly identified on purchase document as deliverable data.

5.8 Product with electronic components destined for Government or military use require a manufacturer certification referencing the applicable specification. Electronic components destined for commercial or industrial use may not require the same level of certification or traceability requirements.

5.8.1 Electronic component requirements for the product may be identified from a review of the customer purchase order, specification, or flowdown requirements. It is always prudent for purchasing to request certification and traceability data as a deliverable item.

5.9 Purchasing must both identify customer flowdown requirements and then flowdown the applicable Counterfeit Parts requirements including PB 140:00 to the external provider or subcontractor.

5.10 The purchase document must specify the applicable requirements of the Counterfeit Part Procedure to the external provider to minimize the risk of receiving counterfeit parts.

5.10.1 In order to minimize the risk of procuring counterfeit parts the purchasing document language should include requirements to ensure conforming, original, and authentic parts are provided.

5.10.2 The purchasing document may list certification or traceability requirements, test and / or inspection results, external provider Quality System requirement, a statement of financial responsibility, the length of obligation, and any penalties associated with fraud.

5.11 Receiving inspection Personnel processing electrical, electronic and electro-mechanical parts per MAT-03 shall examine them to ensure they detect or identify suspect or counterfeit parts prior to acceptance per AS5553 for documentation and packaging, then visually inspect parts per general and detailed criteria. Inspection may include testing. Suspected or determined counterfeit parts shall be documented as nonconforming per QAL-08 and be segregated to the Quality Clinic.

5.11.1 Personnel processing suspect or counterfeit electrical, electronic and electro-mechanical parts, identified after initial acceptance, shall document them as nonconforming per QAL-08 and segregate them to the Quality Clinic.

5.11.2 Suspect or counterfeit parts shall be held in the Quality Clinic until a final disposition of nonconforming electrical, electronic and electro-mechanical parts is completed.

5.11.3 A corrective action for the counterfeit parts shall be issued and processed per QAL-12.

5.12 When an investigation determines that suspect electrical, electronic and electro-mechanical parts are not counterfeit, the nonconforming material may be dispositioned as “Acceptable”. Record, on the non-conformance document(s), all test and inspection results, investigation team determinations and any team decisions that support the “acceptable” conclusion, as a record of due diligence and/or evaluation activities performed during investigation.

5.13 As applicable, purchasing and Supplier Quality shall disposition suspect parts as “Return to Vendor”. Supplier Quality shall disposition counterfeit parts as “Scrap” or “provide to government”.

5.14 Supplier Quality shall issue a corrective action to external provider.

5.15 All documented and verified occurrences of counterfeit parts must be reported to Management. Using the documented details related to the counterfeit part detection, Management determines if the legal department must become involved to properly and legally address receipt of the counterfeit part with the supplier.

5.16 Management is responsible to determine how the counterfeit part occurrence is reported internally, to customers, to the Government, the Government Cooperative (GIDEP), other industry reporting programs (ERAI), and the criminal authorities.

6.0 Non-COTS Parts Requirements

6.1 Distributors that supply Non-COTS parts, like fasteners, nuts, washers, springs, o-rings, inserts and pins shall have a certification from the CCM / OEM and the certification shall be delivered with each lot.

6.2 Purchasing may procure Non-COTS parts from an independent distributor or part broker **only** when authorized by the customer or as a last resort.

6.2.1 Prior to buying Non-COTS parts from these sources as a last resort, Purchasing shall review and obtain approval of any proposed purchase from the Director of Materials or the Director of Quality Assurance for any of these from any such source.

6.2.2 Purchasing shall contact Quality Assurance for determination if the customer must be contacted and / or their approval in writing is required prior to completing the procurement. When applicable, the written approval will be so obtained and filed with the associated purchasing records in accordance with QAL-02.

6.2.3 Receiving shall perform verification of received electronic, electrical, and electromechanical material or product per AS6174, Figure E1.

7.0 Raw Material Verification Testing

7.1 Circor Aerospace external providers are required to supply Validation of material per quality clauses Q03, Q03A, Q03B and Q41 in regard to Mill Certifications/Test results. These documents are supplied by either a direct source purchase from the mill or indirect purchase from Distributers. This encompasses all types of raw material.

7.2 Corona Facility: In addition to the requirements stated in 7.1 suppliers of items fabricated from raw materials, per AS9100 8.4.2 section D, are required to randomly test raw material purchases and verify that supplied material meets all specification requirements. These test samples must be cut from the actual purchased material are to be sent to an independent accredited Laboratory for Mechanical and Chemical testing. You will need to request a report showing the results of the testing. The required frequency is as follows:

- 1 test sample per year, per direct material source (Mill) purchase.
- 5 test samples per year, per direct material source (distributors) purchase.
- 1 sample per year, per process type. Ex: Plating, heat treat, protective coating, etc.

7.3 Corona Facility: The supplier will review the test results and verify that the results meet the provided mill certification results in addition to material specification requirements. The supplier will keep these reports on file/in a log and available for immediate review upon request from Circor Aerospace, Inc.

7.3.1 If the test results do not confirm the material tested meets the specification, stop all work on this material and notify Circor Supplier Quality immediately for disposition.

8.0 REFERENCES

8.1 Parent Documents

AS5553	Counterfeit Electronic Parts, Avoidance, Detection, Mitigation, and Disposition
AS6174	Counterfeit Material, Assuring Acquisition of Authentic and Conforming Material
Apend.QX	Lockheed Martin Supplier Quality Requirements (Paragraph 1.4)
SQAR	Northrop Grumman Paragraph 3.11 (Quality Clause 40)
H900	Boeing Purchase Order Clause (item #25)

8.2 Related Documents

AS9100	Quality Systems-Aerospace- Model for Quality Assurance in Design, Development, Production, Installation and Servicing
ISO9001	Quality Management Systems – Requirements
MAT-03	Receiving Inspection
QM01	Quality System Manual (QSM)
QAL-02	Control of Quality Records
QAL-08	Control of Nonconforming Product
QAL-12	Corrective Action Process
QAL-15	Quality Clinic

REV LTR	PAGE (S)	DESCRIPTION	DATE	BY	APPR
N/C	All	Initial Release	8-08-11	DB	KRS
A	All	Updated to current requirements	1-10-18	MH	SAK
B	3,4	Revised numbering	1/15/18	MH	SAK
C	2-6	Update pages to Rev., DCF#, & dates	1/24/18	MH	SAK
D	6	Added “Corona Facility” to section 7.2 and 7.3	12/15/20	FR	CM