



# AEROSPACE STANDARD

**AS5553®****REV. D**Issued 2009-04  
Revised 2022-04

Superseding AS5553C

**Counterfeit Electrical, Electronic, and Electromechanical (EEE) Parts;  
Avoidance, Detection, Mitigation, and Disposition**

## RATIONALE

This standard is being updated to address the evolving and increasing risk of counterfeit electrical, electronic, and electromechanical (EEE) parts entering the aerospace supply chain, posing performance, reliability, and safety risks.

## FOREWORD

To meet customer requirements, electronics industry organizations must produce, and continually improve, products to meet or exceed customer and regulatory authority requirements on performance, safety, and reliability. The globalization of the aerospace industry, and the resulting diversity of regional/national requirements and expectations, have complicated this objective. Industry faces the challenge of assuring the quality and integration of product purchased from suppliers throughout the world and at all levels within the supply chain. Aerospace suppliers and contractors face the challenge of delivering products to multiple customers with varying quality expectations and requirements.

This document standardizes requirements, practices, and methods related to EEE parts management, supplier management, procurement, inspection, test/evaluation, and response strategies in order to mitigate counterfeiting risks and to avoid, detect, and disposition suspect counterfeit or counterfeit EEE parts.

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## 1. SCOPE

### 1.1 Purpose and Application

This standard is for use by organizations that procure and integrate EEE parts. These organizations may provide EEE parts that are not integrated into assemblies (e.g., spares and/or repair EEE parts). Examples of such organizations include, but are not limited to: original equipment manufacturers; contract assembly manufacturers; maintenance, repair, and overhaul organizations; value-added resellers; and suppliers that provide EEE parts or assemblies as part of a service. The requirements of this standard are generic. These requirements are intended to be applied (or flowed down as applicable) through the supply chain to all organizations that procure EEE parts and/or systems, subsystems, or assemblies, regardless of type, size, and product provided. The mitigation of counterfeit EEE parts in this standard is risk-based and these mitigation steps will vary depending on the criticality of the application, desired performance and reliability of the equipment/hardware.

The requirements of this document are intended to be used in conjunction with a higher-level quality standard (e.g., AS/EN/JISQ9100, ISO-9001, ANSI/ASQC E4, ASME NQA-1, AS9120, AS9003, or equivalent) and other quality management system documents. They are not intended to stand alone, supersede, or cancel requirements found in other quality management system documents, requirements imposed by contracting authorities, or applicable laws and regulations unless an authorized exemption/variance has been obtained. This document is not intended to make a legal determination of fraud, and appropriate legal counsel should be consulted for further action.

### 1.2 Additional Guidance

ARP6328 has been developed to provide a significant amount of additional guidance information that the organization should consider in conjunction with implementing all elements of AS5553 in the organization's counterfeit EEE part risk mitigation plan/processes. The ARP provides examples of inspections and tests that could be applied to EEE parts purchased from non-authorized sources to determine if the EEE parts could be suspect counterfeit. Guidance on how to test at-risk EEE parts is included in AS6171 suite of standard test methods for detection of counterfeit EEE parts.

NOTE: The Appendices originally contained in AS5553 have been moved to ARP6328.

## 2. REFERENCES

### 2.1 Applicable Documents

The following publications form a part of this document to the extent specified herein. For references with dates, only the edition cited applies. For references without dates, the latest edition of the referenced document applies. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

#### 2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), [www.sae.org](http://www.sae.org).

ARP6328	Guideline for Development of Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition Systems
AS6081	Fraudulent/Counterfeit Electronic Parts: Avoidance, Detection, Mitigation, and Disposition - Distributors
AS6171	Test Methods Standard; General Requirements, Suspect/Counterfeit, Electrical, Electronic, and Electromechanical Parts
AS6496	Fraudulent/Counterfeit Electronic Parts: Avoidance, Detection, Mitigation, and Disposition - Authorized/Franchised Distribution
AS9003	Inspection and Test Quality Systems Requirements for Aviation, Space, and Defense Organizations

AS9100 Quality Management Systems - Requirements for Aviation, Space, and Defense Organizations

NOTE: SAE adopted IAQG standard for the Americas also available as EN9100 and JISQ9100.

AS9120 Quality Management Systems - Requirements for Aviation, Space, and Defense Distributors

NOTE: SAE adopted IAQG standard for the Americas also available as EN9120 and JISQ9120.

EIASTD4899 Requirements for an Electronic Components Management Plan

SAE STD 0016 Standard for Preparing a DMSMS Management Plan

#### 2.1.2 ISO/IEC Publications

Available from International Organization for Standardization, ISO/IEC Central Secretariat, 1, ch. de la Voie-Creuse, CP 56, CH-1211 Geneva 20, Switzerland, Tel: +41 22 749 01 11, [www.iso.org](http://www.iso.org).

ISO 9000 Quality Management Systems - Fundamentals and Vocabulary

ISO 9001 Quality Management Systems - Requirements

IEC62402 Obsolescence Management

#### 2.1.3 Commercial Publications

ASME NQA-1 Quality Assurance Requirements for Nuclear Facilities Applications

CCAP-101 Counterfeit Components Avoidance Program, Certification for

IDEA-STD-1010 Acceptability of Electronic Components Distributed in the Open Market

#### 2.2 Terms and Definitions

For the purposes of this document, the terms and definitions listed in ISO 9000 and the following apply. In the event of a conflict of definitions, the definitions herein shall take precedence.

Throughout the text of this document, wherever the term “product” occurs, it can also mean “service.” Throughout the text of this document, wherever the term “part” occurs, it is synonymous with “component.”

##### 2.2.1 SUSPECT COUNTERFEIT EEE PART

An EEE part for which there is objective and credible evidence indicating that it is likely counterfeit.

##### 2.2.2 COUNTERFEIT EEE PART

1. An unauthorized (a) copy, (b) imitation, (c) substitute, or (d) modified EEE part, which is knowingly, recklessly, or negligently misrepresented as a specified genuine item from an original component manufacturer or authorized aftermarket manufacturer; or
2. A previously used EEE part or a part which has been modified, and is knowingly, recklessly, or negligently misrepresented as new without disclosure to the customer that it has been previously used.

NOTE 1: This definition may differ from civil or criminal laws that address the acts of counterfeiting or fraud, and is not intended to make a legal determination. Used EEE parts sold as new that have not been modified are not counterfeit, according to some civil and criminal statutes. These issues are covered under existing laws covering fraud. For civil matters, this issue would typically be covered under civil fraud and terms and conditions of a purchase order or contract that specifies EEE parts must be new.