Industry Standards to Mitigate Counterfeit Risk in Supply Chain

JEDEC JC-13

G-19 and G-21 Management Committee

G-19 Counterfeit Electronic Components Committee Oversight

G-21 Counterfeit Materiel Committee Oversight

AMS G Titanium and Refractory Metals Committee

Auditor Competency (JESDsxxxx)

Test Laboratory Accreditation Standard (AS6810)

Auditor Competency (Asxxxx)

Auditor Competency (Asxxxx)

Certification Body

Accreditation Body

Certification Body

Original Component Manufacturer

Test Provider

Distributor

Original Equipment Manufacturer/User/Maintenance Repair & Overhaul (MRO)

Proficiency Test Provider
Operator(s) Certified to PT Scheme for Identified AS6171 Test Methods

Authorized/ Franchised

Broker/ Independent

Commodity Specific

JESD243, Fraudulent/ Counterfeit Electronic Parts: Avoidance, Detection, Mitigation and Disposition for Manufacturers
JEDEC **JC-13**

JESDxxx, Compliance Standard or Guide (Includes Audit Checklist)
JEDEC **JC-13**

AS6171A, Test Methods Standard; Counterfeit Electronic Parts, SAE **G-19A**

- **AS6171/1**: Suspect/Counterfeit Test Evaluation Method
- **AS6171/2A**: External Visual Inspection (EVI) (incl. remarking, resurfacing, weight, dimensions, SEM)
- **AS6171/3**: X-Ray Fluorescence (XRF) (incl. lead finish, thickness)
- **AS6171/4**: Delid/Decapsulation Physical Analysis (DDPA)
- **AS6171/5**: Radiological Inspection (RI): X-ray imaging
- **AS6171/6**: Acoustic Microscopy (AM): external and internal
- **AS6171/7**: Electrical Test: Curve Trace, Full DC, Key Electrical Parameters for AC, Switching, and Functional Tests; ambient or over temperature (incl. environmental, burn-in, seal)
- **AS6171/8**: Raman Spectroscopy
- **AS6171/9**: Fourier Transform Infrared Spectroscopy (FTIR): materials identification
- **AS6171/10**: Thermogravimetric Analysis (TGA)
- **AS6171/11**: Design Recovery (DR)

SAE G-19A

- **AS6171/12:** Acoustic Microscopy
- **AS6171/13:** Secondary on Mass Spectroscopy
- **AS6171/14:** Radiated Electromagnetic Emission
- **AS6171/15:** Packaging
- **AS6171/16:** Netlist Assurance
- **AS6171/17:** Laser Scanning Microscopy
- **AS6171/18:** TMA Test Methods
- **AS6171/19:** AES Test Method
- **AS6171/20:** XPS Test Method
- **AS6171/21:** GC/MS Test Methods
- **AS6171/22:** SEM Test Methods

SAE G-19A

AS6496, Authorized Distributor Counterfeit Mitigation Sub-com. SAE **G-19AD**

Asxxxx, Compliance Standard or Guide (Includes Audit Checklist) SAE **G-19C**

ARP6178, Counterfeit Electronic Parts; Tool for Risk Assessment of Distributors. Worksheet and User Guide. SAE **G-19DR**

AS6081, Counterfeit Electronic Parts Avoidance, ID's. SAE **G-19D**

AS6301, Compliance Standard or Guide (includes Audit Checklist) SAE **G-19C**

AS5553C, Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition. SAE **G-19CI**

AS6462B, AS5553B, Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition Verification Criteria Includes Audit Checklist. SAE **G-19C**

ARP6328, Guideline for Development of Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition Systems. SAE **G-19CI**

AIR6860, Use of SAE AS5553 for Implementation of U.S. DFARS 252.246-7007 & 252.246-7008. SAE **G-19CI**

AS6174A, Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel SAE **G-21**

AS6174/1, Compliance Standard or Guide (Includes Audit Checklist) SAE **G-21**

AS7492, Counterfeit and Substandard Battery Risk Mitigation SAE **G-21B**

AS6174/2, Fastener Counterfeit Avoidance and Detection SAE **G-21**

AS6174/3, Bearing Counterfeit Avoidance and Detection SAE **G-21**

AS6886, Refrigerant Counterfeit Avoidance and Detection SAE **G-21**

AS6279B, Standard Practice for Production, Distribution, and Procurement of Metal Stock SAE **AMS G**

Standards status as of August 2019

AIR6273, Terms, Definitions, and Acronyms - Counterfeit Materiel or Electrical, Electronic and Electromechanical Parts
SAE G-19T

Specifications in Red are DoD Adopted

Published | In Development | Gap