

SAE INTERNATIONAL

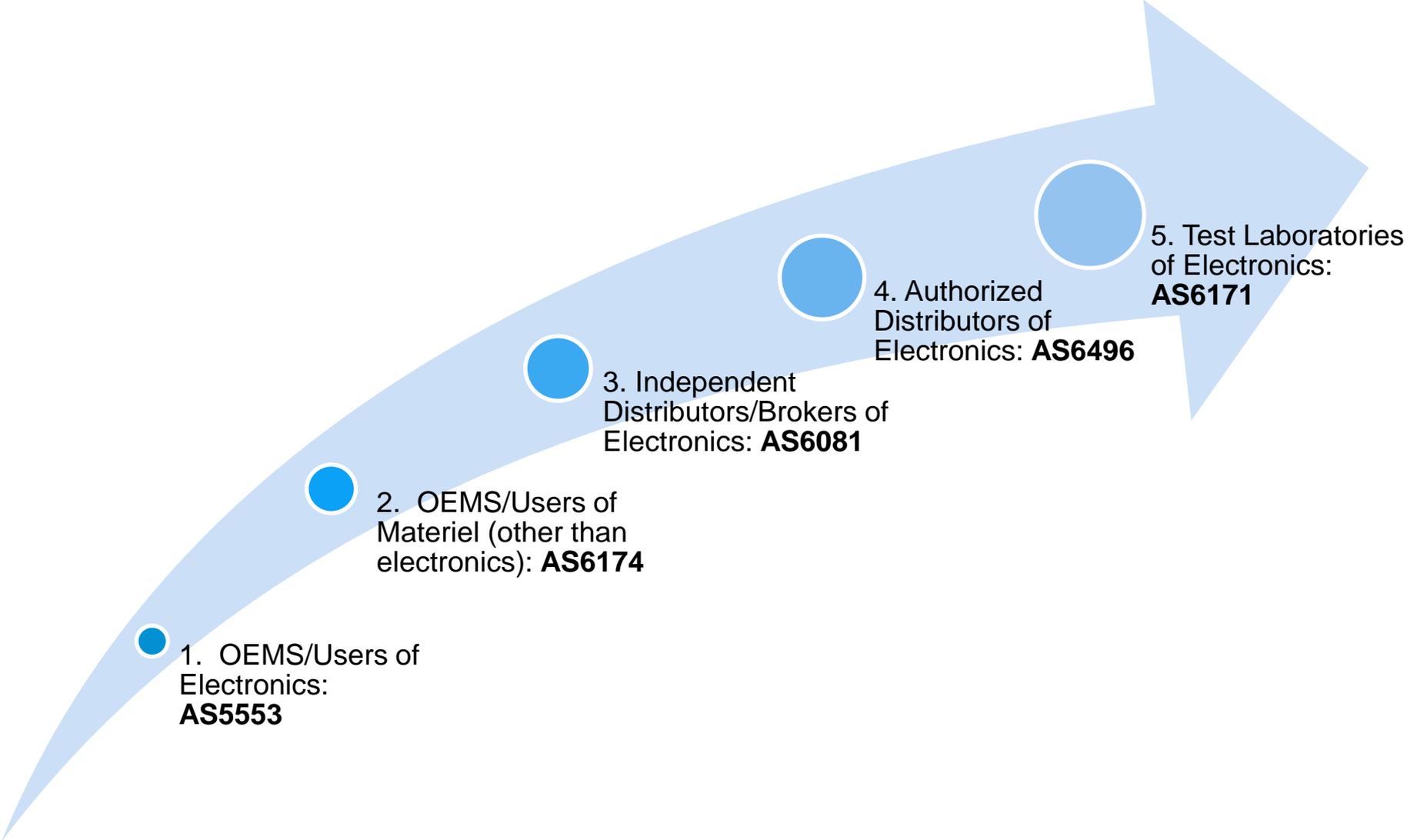
SAE INTERNATIONAL STANDARDS- COUNTERFEIT AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION

December 2015

Bruce Mahone
Director, Washington Operations
SAE International
www.sae.org



G-19 & G-21 Counterfeit Prevention & Detection Standards



1. OEMS/Users of Electronics:
AS5553

2. OEMS/Users of Materiel (other than electronics): **AS6174**

3. Independent Distributors/Brokers of Electronics: **AS6081**

4. Authorized Distributors of Electronics: **AS6496**

5. Test Laboratories of Electronics:
AS6171

SAE G-19 & G-21 Document Proposed Roadmap, September 2013

SAE Counterfeit Avoidance Steering Group

G-19 Counterfeit Electronic Components Committee Oversight

Phil Zulueta, SAE G-19 Chairman

G-21 Counterfeit Materiel Committee Oversight

Wayne Moss, Bob Tipton, SAE G-21 Co-Chairman

Auditor Competency (Asxxxx)

Proficiency Test Provider
(ISO/IEC 17043 Accredited)

Certification Body
(IAF & ISO/IEC 17021 Accredited)

Test Provider
(Accredited to ISO/IEC 17025 & Certified to AS9100 and/or ISO 9001)

Original Component Manufacturer
(Certified to AS9100 and/or ISO 9001)

Distributor
(Certified to AS9120 and/or ISO 9001)

Original Equipment Manufacturer/User/MRO
(Certified to AS9100 and/or AS9110 and/or ISO 9001)

Test Provider
(Certified to AS9100 and/or ISO 9001)

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

**Authorized/
Franchised**

**Broker/
Independent**

AS6171, Test Methods Standard; Counterfeit Electronic Parts Document in progress. Dan DiMase & Sultan Lilani, Subcommittee Co-Chairman, Mike Megrđichian, Document Coordinator, SAE **G-19A**

Asxxxx, Compliance Standard or Guide (Includes Audit Checklist) Bill Scofield, Brian Worden - Subcommittee Co-Chairmen, SAE **G-19C**

ASxxxx, OCM Counterfeit Mitigation Subcommittee. Subcommittee Proposed. SIA, SRC Proposed Co-Chairpeople, SAE **G-19O**

ASxxxx, Compliance Standard or Guide (includes Audit Checklist) Bill Scofield, Brian Worden - Subcommittee Co-Chairmen, SAE **G-19C**

AS6496, Authorized Distributor Counterfeit Mitigation Sub-com. Document in progress Kevin Sink & Robin Gray Co-Chairman, SAE **G-19AD**

Asxxxx, Compliance Standard or Guide (Includes Audit Checklist) Bill Scofield, Brian Worden, Sub-com. Chairmen, SAE **G-19C**

AS6081, Counterfeit Electronic Parts Avoidance, ID's. Published 2012-11-7. Rev. A in progress Phil Zulueta Chairman, SAE **G-19D**

AS6301, Compliance Standard or Guide (includes Audit Checklist) Bill Scofield, Brian Worden, Sub-com. Chairmen, SAE **G-19C**

ARP6178, Counterfeit Electronic Parts; Tool for Risk Assessment of Distributors. Worksheet and User Guide Published 2011-12-19 Dan DiMase & Fred Schipp, Subcommittee Co-Chairmen, SAE **G-19DR**

AS553A, Fraudulent/Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition. Issued 2009-04-02. Rev. A published 2013-01-21. Sarah Skinner, Subcommittee Chairperson, SAE **G-19CI**

AS6462, AS5533, Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition Verification Criteria Includes Audit Checklist. Published 2012-11-01. Rev. A in progress. Bill Scofield, Brian Worden - Subcommittee Co-Chairmen, SAE **G-19C**

AS6174, Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel Published 2012-05-09. Rev. A in development. Wayne Moss, Bob Tipton - Subcommittee Co-Chairmen. Materiel Subcommittee, SAE **G-21**

AS6174, Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel Commodity Slash Sheets in Rev. A document. Wayne Moss, Bob Tipton - Subcommittee Co-Chairmen. Materiel Subcommittee, SAE **G-21**

Asxxxx, Compliance Standard or Guide (Includes Audit Checklist) Bill Scofield, Brian Worden - Subcommittee Co-Chairmen, SAE **G-21C**

AIR6273, Terms and Definitions – Fraudulent/Counterfeit Electronic Parts Document in progress. Kirsten Koepsel, Subcommittee Chairperson, SAE **G-19T**

Asxxxx, Anti-Tamper and Transportation Security Subcommittee Proposed. TAPA, CBP, Express Carrier Proposed Co-Chairpeople, **G-19AT**

Published

In Development

Gap

G-19 Subcommittees Formed Since 2009

G-19 Committee

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graph LR; G19[G-19 Committee] --- G19CI[G-19 CI - Continuous Improvement Subcommittee  
(AS5553A: Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition)]; G19 --- G19D[G-19 D - Independent Distributor Subcommittee  
(AS6081: Counterfeit Electronic Parts: Avoidance, Detection, Mitigation, and Disposition;  
Independent Distribution)]; G19 --- G19AD[G-19 AD - Authorized Distributor Counterfeit Mitigation Subcommittee  
(AS6496: Counterfeit Electronic Parts Counterfeit Mitigation AD's)]; G19 --- G19DR[G-19 DR - Distributor Risk Characterization Subcommittee  
(ARP6178: Counterfeit Electronic Parts; Tool for Risk Assessment of Distributors)]; G19 --- G19A[G-19 A - Test Laboratory Standards Development Subcommittee  
(AS6171: Test Methods Standard; Counterfeit Electronic Parts)]; G19 --- G19C[G-19 C - Standards Compliance Verification Subcommittee  
(AS6462: AS5553, Verification Criteria  
AS6301: AS6081 Verification Criteria)]; G19 --- G19T[G-19 T - Definitions Task Group  
(AIR6273: Terms and Definitions - Counterfeit Parts)];
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G-19 CI - Continuous Improvement Subcommittee
(AS5553A: Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition)

G-19 D - Independent Distributor Subcommittee
(AS6081: Counterfeit Electronic Parts: Avoidance, Detection, Mitigation, and Disposition;
Independent Distribution)

G-19 AD - Authorized Distributor Counterfeit Mitigation Subcommittee
(AS6496: Counterfeit Electronic Parts Counterfeit Mitigation AD's)

G-19 DR - Distributor Risk Characterization Subcommittee
(ARP6178: Counterfeit Electronic Parts; Tool for Risk Assessment of Distributors)

G-19 A - Test Laboratory Standards Development Subcommittee
(AS6171: Test Methods Standard; Counterfeit Electronic Parts)

G-19 C - Standards Compliance Verification Subcommittee
(AS6462: AS5553, Verification Criteria
AS6301: AS6081 Verification Criteria)

G-19 T - Definitions Task Group
(AIR6273: Terms and Definitions - Counterfeit Parts)

Summary of SAE G-19/G-21 Aerospace Standards

Standard	Title	Status
SAE AS5553A (G19-CI)	Counterfeit Electronic Parts; Avoidance, Detection, Mitigation, and Disposition	Issued January 2013 and available at www.sae.org . Rev B in development
SAE AS6462 (G19-C)	Verification Criteria for Certification against AS5553	AS5553 verification criteria for first release published – 2011-11. Discussions underway for certification programs/schemes. Rev. A verification criteria in ballot
SAE AS6171 (G19-A)	Test Methods Standard; Counterfeit Electronic Parts	In draft; Individual test methods balloted. Main document balloting in process
SAE AIR6273 (G19-T)	Terms and Definitions:	In draft.

Summary of SAE G-19/G-21 Aerospace Standards

Standard	Title	Status
SAE AS6081A (G19-D)	Counterfeit Electronic Parts Avoidance – Independent Distributors	Published 2012-11. Rev. A in development.
SAE AS6301 (G19-C)	Fraudulent/Counterfeit Electronic Parts: Avoidance, Detection, Mitigation, and Disposition – Independent Distributors Verification Criteria	In draft.
SAE ARP6178 (G19-DR)	Counterfeit Electronic Parts; Tool for Risk Assessment of Distributors	Published 2011-12.
SAE AS6496 (G19-AD)	Authorized Distributor Counterfeit Mitigation	Published 2014-08
SAE AS6174 (G-21)	Counterfeit Materiel; Assuring Acquisition of Authentic and Conforming Materiel	Rev. A Published 2014-07. Rev B and slash sheets (refrigerants, fasteners) soon

Counterfeit Avoidance Accreditation Program (CAAP)

Under PRI (Performance Review Institute – the conformity assessment arm of SAE)

- a. Establishing audit criteria and requirements to meet counterfeit avoidance standards
- b. Replacing stakeholder audits with one audit process, approved through a consensus decision-making process of industry stakeholders
- c. Conducting in-depth, technical counterfeit avoidance process audits
- d. Improving compliance to counterfeit avoidance standards throughout industry with consistent audit requirements
- e. Utilizing technically experienced auditors to assure process familiarity

Anti-Counterfeit Advisory Group (ACAG)

- Comprised of Representatives of a Broad Range of Aerospace/Defense Communities
 - OSD, NAVAIR, DLA, DCMC, NASA, DHS, FAA
 - Airframers, Engine Mfrs, Component Mfrs, Distributors
 - Standards Committee Chairs, (SAE G-14, G-19, G-21, etc.)
- Will address consistency, gaps, and other overriding issues in standards, then make recommendations to committees
- Will serve as a neutral forum to address any other anti-counterfeit issues that arise

- SAE J3061, publication 3 December 2016 - Rationale:
 - To provide a cybersecurity process framework and guidance to help organizations identify and assess cybersecurity threats and design cybersecurity into cyber-physical vehicle systems throughout the entire development lifecycle process.
 - Defines a complete lifecycle process framework that can be tailored and utilized within each organization's development processes to incorporate cybersecurity into cyber-physical vehicle systems from concept phase through production, operation, service, and decommissioning.
 - Provides high-level guiding principles.
 - Provides information on existing tools and methods.
 - Provides the foundation for further standards development.

SAE INTERNATIONAL

QUESTIONS?

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