SLOVENSKI STANDARD
SIST EN IEC 62668-2:2019

01-december-2019

Upravljanje procesov v avioniki - Preprečevanje ponarejanja - 2. del: Ravnanje z elektronskimi komponentami iz neodobrenih virov (IEC 62668-2:2019)

Process management for avionics - Counterfeit prevention - Part 2: Managing electronic components from non-franchised sources (IEC 62668-2:2019)

Luftfahrtelektronik-Prozessmanagement - Verhinderung von Produktfälschung - Teil 2: Handhabung von elektronischen Bauelementen nichtkonzessionierter Herkunft (IEC 62668-2:2019)

Gestion des processus pour l'avionique - Prévention de la contrefaçon - Partie 2: Gestion des composants électroniques achetés auprès de sources non franchisées (IEC 62668-2:2019)

Ta slovenski standard je istoveten z: **EN IEC 62668-2:2019**

ICS:

31.020	Elektronske komponente na splošno	Electronic components in general
49.020	Letala in vesoljska vozila na splošno	Aircraft and space vehicles in general

SIST EN IEC 62668-2:2019 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

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EN IEC 62668-2

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Process management for avionics - Counterfeit prevention - Part 2: Managing electronic components from non-franchised sources (IEC 62668-2:2019)

Gestion des processus pour l'avionique - Prévention de la contrefaçon - Partie 2: Gestion des composants électroniques achetés auprès de sources non franchisées (IEC 62668-2:2019)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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European foreword

The text of document 107/353/FDIS, future edition 1 of IEC 62668-2, prepared by IEC/TC 107 "Process management for avionics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62668-2:2019.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-05-13
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-08-13

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 62668-2:2019 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068-2-1	NOTE	Harmonized as EN 60068-2-1
IEC 60068-2-30	NOTE	Harmonized as EN 60068-2-30
IEC 60115-8	NOTE	Harmonized as EN 60115-8

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 62239-1	-	Process management for avionics - Management plan - Part 1: Preparation and maintenance of an electronic components management plan	-	-
IEC 62668-1	2019	Process management for avionics - Counterfeit prevention - Part 1: Avoiding the use of counterfeit, fraudulent and recycled electronic components	-	-

IEC 62668-2

Edition 1.0 2019-07

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Process management for avionics – Counterfeit prevention –
Part 2: Managing electronic components from non-franchised sources

Gestion des processus pour l'avionique – Prévention de la contrefaçon –
Partie 2: Gestion des composants électroniques achetés auprès de sources non franchisées

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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PROCESS MANAGEMENT FOR AVIONICS – COUNTERFEIT PREVENTION –

Part 2: Managing electronic components from non-franchised sources

FOREWORD

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International Standard IEC 62668-2 has been prepared by IEC technical committee 107: Process management for avionics.

This first edition cancels and replaces the second edition of IEC TS 62668-2 published in 2016. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the second edition of IEC TS 62668-2:

a) updates to the risk assessment process, including reference to SAE AS6081;

b) updates to the test methods, including reference to the SAE AS6171 test methods published and in development;

c) updates in line with IEC 62668-1 for definitions and references to DFARS.

This International Standard is to be used in conjunction with IEC 62239-1 and IEC 62668-1.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
107/353/FDIS	107/359/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all the parts in the IEC 62668 series, published under the general title *Process management for avionics – Counterfeit prevention*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

The avionics industry has a responsibility to ensure that all flight equipment produced has a predicted product life which correlates with the predicted repair and service life to ensure the public is not endangered. Typically, an original equipment manufacturer (OEM) calculates a mean time between failure (MTBF) and possibly a mean time to failure (MTTF) prediction. These calculations assume all components are new, or considered as “unused”, at the point of introduction into flight use and that no useful component life and/or any “unsafe” component conditions have been used. It is therefore essential that counterfeit, recycled and fraudulent components which have had potentially some of their ”useful life” consumed and which can also be malfunctioning are not purchased for use in aerospace, defence and high performance (ADHP) industries.

PROCESS MANAGEMENT FOR AVIONICS – COUNTERFEIT PREVENTION –

Part 2: Managing electronic components from non-franchised sources

1 Scope

This part of IEC 62668, defines requirements for avoiding the use of counterfeit, recycled and fraudulent components when these components are not purchased from the original component manufacturer (OCM) or are purchased from outside of franchised distributor networks for use in the aerospace, defence and high performance (ADHP) industries. This practice is used, as derogation, only when there are no reasonable or practical alternatives.

NOTE Typically this document is used in conjunction with IEC 62239-1 and IEC 62668-1, enabling ADHP industries to manage and avoid the use of counterfeit, recycled and fraudulent components in their supply chains.

Although developed for the ADHP industry, this document can be used by other high-performance and high-reliability industries, at their discretion.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 62239-1, *Process management for avionics – Management plan – Part 1: Preparation and maintenance of an electronic components management plan*

IEC 62668-1:2019, *Process management for avionics – Counterfeit prevention – Part 1: Avoiding the use of counterfeit, fraudulent and recycled electronic components*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1.1
aftermarket source
reseller which may or may not be under contract with the original component manufacturer (OCM) or is sometimes a component “re-manufacturer”, under contract with the OCM

Note 1 to entry: The reseller accumulates inventories of encapsulated or non-encapsulated components (wafer and/or die) whose end of life date has been published by the OCM. These components are then resold at a profit to fill a need within the market for components that have become obsolete.

[SOURCE: IEC 62668-1:2019, 3.1.1]

3.1.2
broker
individual or corporate organization that serves as an intermediary between buyer and seller

Note 1 to entry: In the electronic component sector a broker specifically seeks to supply obsolete or hard to find components in order to turn a profit. To do so it may accumulate an inventory of components considered to be of strategic value or may rely on inventories accumulated by another. The broker operates within a worldwide component exchange network.

[SOURCE: IEC 62668-1:2019, 3.1.2]

3.1.3
COTS product
commercial off-the-shelf product
one or more components, assembled and developed for multiple commercial consumers, whose design and/or configuration is controlled by the manufacturer's specification or industry standard

Note 1 to entry: COTS products can include electronic components, subassemblies, or assemblies, or top-level assemblies. Electronic COTS subassemblies or assemblies include circuit card assemblies, power supplies, hard drives, and memory modules. Top-level COTS assemblies include a fully integrated rack of equipment such as raid arrays, file servers to individual switches, routers, personal computers, or similar equipment.

Note 2 to entry: This note applies to the French language only.

[SOURCE: IEC 62668-1:2019, 3.1.3]

3.1.4
counterfeit, verb
action of simulating, reproducing or modifying a material, good or its packaging without authorization

Note 1 to entry: It is the practice of producing products which are imitations or are fake goods or services. This activity infringes the intellectual property rights of the original manufacturer and is an illegal act. Counterfeiting generally relates to willful trademark infringement.

[SOURCE: IEC 62668-1:2019, 3.1.4]

3.1.5
counterfeited component
material good imitating or copying an authentic material, good which may be covered by the protection of one or more registered or confidential intellectual property rights

Note 1 to entry: A counterfeited component is one whose identity or pedigree has been altered or misrepresented by its supplier.

Identity = original manufacturer, part number, date code, lot number, testing, inspection, documentation or warranty etc.

Pedigree = origin, ownership history, storage, handling, physical condition, previous use, etc.

Note 2 to entry: When a material good has no registered or confidential intellectual property rights, then the material good has no intellectual property protection. Examples include situations where the original component manufacturer (OCM) has ceased to trade and has not sold or passed on the intellectual property rights to another entity.

[SOURCE: IEC 62668-1:2019, 3.1.5]

3.1.6
customer device specification
device specification written by a user and agreed by the supplier

[SOURCE: IEC 62668-1:2019, 3.1.6]

3.1.7
customer
user
original equipment manufacturer (OEM) which purchases electronic components, including integrated circuits and/or semiconductor devices compliant with this document, and uses them to design, produce, and maintain systems

[SOURCE: IEC 62668-1:2019, 3.1.7]

3.1.8
data sheet
document prepared by the manufacturer that describes the electrical, mechanical, and environmental characteristics of the component

[SOURCE: IEC 62668-1:2019, 3.1.8]

3.1.9
franchised distributor or agent
individual or corporate organisation that is legally independent from the franchiser (in this case the electronic component manufacturer or OCM) and agrees under contract to distribute products using the franchiser's name and sales network

Note 1 to entry: Distribution activities are carried out in accordance with standards set and controlled by the franchiser. Shipments against orders placed can be dispatched either directly from the OCM or the franchised distributor or agent. In other words, the franchised distributor enters into contractual agreements with one or more electronic component manufacturers to distribute and sell the said components. Distribution agreements may be stipulated according to the following criteria: geographical area, type of clientele (avionics for example), maximum manufacturing lot size. Components sourced through this route are protected by the OCM's warranty and supplied with full traceability.

[SOURCE: IEC 62668-1:2019, 3.1.9]

3.1.10
fraudulent component
electronic component produced or distributed either in violation of regional or local law or regulation, or with the intent to deceive the customer

Note 1 to entry: This includes but is not limited to the following which are examples of components which are fraudulently sold as new ones to a customer:

1) a stolen component;
2) a component scrapped by the original component manufacturer (OCM) or by any user;
3) a recycled component, that becomes a fraudulent recycled component when it is a disassembled (for example, disassembled from a PCB assembly) component resold as a new component (see Figure 1), where typically there is evidence of prior use and rework (for example solder, re-plating or lead re-attachment activity) on the component package terminations;
4) a counterfeit component, a copy, an imitation, a full or partial substitute of brands;
5) fraudulent designs, models, patents, software, or copyright sold as being new and authentic. For example: a component whose production and distribution are not controlled by the original manufacturer;
6) unlicensed copies of a design;
7) a disguised component (remarking of the original manufacturer's name, reference date/code or other identifiers etc.), which may be a counterfeit component (see Figure 1);
8) a component without an internal silicon die or with a substituted silicon die which is not the original manufacturer's silicon die.

[SOURCE: IEC 62668-1:2019, 3.1.10]