Process management for avionics – Preparation of an electronic components management plan

Gestion des processus pour l’avionique – Préparation d’un plan de gestion des composants électroniques

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FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

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The main task of IEC technical committees is to prepare International Standards. In exceptional circumstances, a technical committee may propose the publication of a technical specification when:

- the required support cannot be obtained for the publication of an International Standard, despite repeated efforts, or
- The subject is still under technical development or where, for any other reason, there is the future but no immediate possibility of an agreement on an International Standard.

Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC 62239, which is a technical specification, has been prepared by IEC technical committee 107: Process management for avionics.

The text of this technical specification is based on the following documents:

<table>
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<tr>
<th>Enquiry draft</th>
<th>Report on voting</th>
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<td>107/19, 19A/DTS</td>
<td>107/20/RVC</td>
</tr>
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Full information on the voting for the approval of this technical specification can be found in the report on voting indicated in the above table.
This technical specification cancels and replaces IEC/PAS 62239 published in 2001. This first edition constitutes a technical revision.

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

The committee has decided that the contents of this publication will remain unchanged until 2006. At this date, the publication will be

• reconfirmed;
• withdrawn;
• replaced by a revised edition, or
• amended.

A bilingual version of this technical specification may be issued at a later date.
INTRODUCTION

This document is intended to help aerospace equipment manufacturers, subcontractors, maintenance facilities, and other aerospace component users develop their own Electronic Component Management Plans (ECMPs), hereinafter also referred to as ‘plan’. This document states objectives to be accomplished; it does not require specific tasks to be performed, specific data to be collected or reports to be issued. Those who prepare plans in compliance with this document are encouraged to document processes that are the most effective and efficient for them in accomplishing the objectives of this document. In order to allow flexibility in implementing and updating the documented processes, plan authors are encouraged to refer to their own internal process documents instead of including detailed process documentation within their plans.

This component management document is intended for aerospace users of electronic components. This standard is not intended for use by the manufacturers of electronic components. Components selected and managed according to the requirements of a plan compliant to this document may be approved by the concerned parties for the proposed application, and for other applications with equal or less severe requirements.

Organizations that prepare such plans may prepare a single plan, and use it for all relevant products supplied by the organization, or may prepare a separate plan for each relevant product or customer.
1 Scope

This Technical Specification defines the requirements for developing an Electronic Components Management Plan (ECMP) to assure customers and regulatory agencies that all of the electronic components in the equipment of the plan owner are selected and applied in controlled processes compatible with the end application and that the technical requirements detailed in Clause 4 are accomplished. In general, the owners of a complete electronic components management plan are avionics equipment manufacturers.

2 Normative references

The following referenced documents are indispensable for the application 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/PAS 62240, Use of semiconductor devices outside manufacturers’ specified temperature ranges