



BSI Standards Publication

Process management for avionics - Electronics design

Part 1: Electrical signal properties, naming conventions
and interface control document (ICD)

National foreword

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TECHNICAL REPORT



**Process management for avionics – Electronics design –
Part 1: Electrical signal properties, naming conventions and interface control
document (ICD)**

INTERNATIONAL
ELECTROTECHNICAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**PROCESS MANAGEMENT FOR AVIONICS –
ELECTRONICS DESIGN –**

**Part 1: Electrical signal properties, naming conventions and interface
control document (ICD)**

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IEC TR 63238-1, which is a Technical Report, has been prepared by IEC technical committee 107: Process management for avionics.

The text of this Technical Report is based on the following documents:

Draft TR	Report on voting
107/351/DTR	107/356/RVDTR

Full information on the voting for the approval of this Technical Report 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 parts in the IEC 63238 series, published under the general title *Process management for avionics – Electronics design*, 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- withdrawn,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.

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PROCESS MANAGEMENT FOR AVIONICS – ELECTRONICS DESIGN –

Part 1: Electrical signal properties, naming conventions and interface control document (ICD)

1 Scope

This part of IEC 63238 provides information and a template to create an interface control document (ICD) for any project which includes electronic assemblies, such as electronic circuit card assemblies (CCAs) or electronic devices, connected together. This document proposes electrical signal naming conventions when interfacing electronic assemblies, and an example containing seven signal naming conventions is included. This document supports original equipment manufacturers (OEMs) in the preparation and maintenance of their electronic assemblies interfaces and integration specifications to avoid mis-understanding of signals which can cause unnecessary design and/or integration errors, and testing complications.

2 Normative references

There are no normative references in this document.

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

interface control document

ICD

document which defines for each electronic signal its electrical properties value and naming

Note 1 to entry Typical electronic signal examples include DC voltage, 5 V, 3,3 V.

Note 2 to entry Typical electrical property values include sine wave, rectangular wave.

3.1.2

electronic assembly

electrical or electronic device that is not subject to disassembly without destruction or impairment of design use

EXAMPLE Electronic circuit cards or modules, displays, storage devices, printers, laptop computer, electro/optical devices, etc.

[SOURCE: IEC TS 62239-2:2017, 3.1.20]