
General requirements for the payload interface of civil unmanned aircraft systems

*Exigences générales relatives à l'interface de la charge utile des
aéronefs sans pilote civils*





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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Foreword

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This document was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 16, *Unmanned aircraft systems*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

General requirements for the payload interface of civil unmanned aircraft systems

1 Scope

This document specifies the composition, functional and performance requirements for a payload interface of civil unmanned aircraft systems (UAS), with the maximum take-off mass of 0,25 kg to 25 kg which relates to level II through IV according to ISO 21895.

This document is applicable to the design and manufacture of physically independent payload interfaces which connect an external payload to an unmanned aircraft (UA).

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.

EIA/CEA-861, *A DTV Profile for Uncompressed High Speed Digital Interfaces*

IEEE 802.3, *IEEE Standard for Ethernet*

ISO 11898, *Road vehicles — Controller area network (CAN)*

ISO 21384-2, *Unmanned aircraft systems — Part 2: UAS components*

ISO 21384-4, *Unmanned aircraft systems — Part 4: Vocabulary*

USB 2.0, *The second major version of the Universal Serial Bus (USB) standard for interfacing computers and electronic devices*

USB 3.0, *The third major version of the Universal Serial Bus (USB) standard for interfacing computers and electronic devices*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 21384-4 and the following apply.

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

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

3.1

payload interface

mechanism which connects an unmanned aircraft (UA) and its payload, comprised of an aircraft part and a payload part, including mechanical, electrical and communication interfaces

3.2

locking mechanism

mechanism that keeps the payload part of the interface in proper position and prevents it from falling off when the payload is connected