Specification for the testing of balanced and coaxial information technology cabling
Part 2: Cords as specified in ISO/IEC 11801 and related standards
Specification for the testing of balanced and coaxial information technology cabling -
Part 2: Cords as specified in ISO/IEC 11801 and related standards
(IEC 61935-2:2010)

Spécification relative aux essais des câblages symétriques et coaxiaux des technologies de l'information -
Partie 2: Cordons tels que spécifiés dans l'ISO/CEI 11801 et normes associées
(CEI 61935-2:2010)

Spezifikation für die Prüfung der symmetrischen und koaxialen informationstechnischen Verkabelung –
Teil 2: Schnüre nach ISO/IEC 11801 und entsprechenden Normen
(IEC 61935-2:2010)

This European Standard was approved by CENELEC on 2010-09-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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Annex ZA  
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SPECIFICATION FOR THE TESTING OF BALANCED AND COAXIAL INFORMATION TECHNOLOGY CABLING –

Part 2: Cords as specified in ISO/IEC 11801 and related standards

FOREWORD

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International Standard IEC 61935-2 has been prepared by IEC technical committee 46: Cables, wires, waveguides, R.F. connectors, R.F. and microwave passive components and accessories.

This third edition cancels and replaces the second edition published in 2005.

This third edition of IEC 61935-2 differs from the second edition in that it covers category 6A to category 7A cords as defined in ISO/IEC 11801.
The text of this standard is based on the following documents:

<table>
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Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

The French version of this standard has not been voted upon.

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

A list of all parts of the IEC 61935 series, under the general title: Specification for the testing of balanced and coaxial information technology cabling, can be found on the IEC website.

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

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

A bilingual version of this publication may be issued at a later date.

**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

Balanced cords are constructed for connecting equipment using free connectors according to IEC 60603-7 series, IEC 61076-3-104 and IEC 61076-3-110. It is known that connecting hardware performance is subject to influence by the properties of the free connector termination and therefore balanced cords should be tested to determine the quality of the assembly. Moreover, the performance of balanced cords may differ due to the performances of the involved separate components depending upon the efficiency of the manufacturing procedure. Manufacturing procedures also impact upon the reliability of these balanced cords. Therefore, the primary object of this standard is to provide test methods to ensure compatibility of balanced cords to be used in cabling according to ISO/IEC 11801. Another object is to provide test methods and associated requirements to demonstrate the performance and reliability of these balanced cords during their operational lifetime.

The test methods described in this standard may also be used for any balanced cords that include twisted pairs terminated at each end.
1 Scope

This International Standard provides methods to ensure compatibility of balanced cords to be used in cabling according to ISO/IEC 11801 and provides test methods and associated requirements to demonstrate the performance and reliability of these balanced cords during their operational lifetime. This International Standard may also be used for providing test methods for assessing the behaviour of other balanced cords.

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 60068-2-61, Environmental testing – Part 2: Test methods – Test Z/AMB: Climatic sequence

IEC 60603-7 (all parts), Connectors for electronic equipment – Part 7: Detail specifications

IEC 60603-7:2008, Connectors for electronic equipment – Part 7: Detail specification for 8-way, unshielded, free and fixed connectors

IEC 60603-7-51, Connectors for electronic equipment – Part 7-51: Detail specification for 8-way, shielded, free and fixed connectors, for data transmission with frequencies up to 500 MHz

IEC 61076-3-104, Connectors for electronic equipment – Product requirements – Part 3-104: Detail specification for 8-way, shielded free and fixed connectors for data transmissions with frequencies up to 1000 MHz

IEC 61076-3-110, Connectors for electronic equipment – Product requirements – Part 3-110: Rectangular connectors – Detail specification for shielded, free and fixed connectors for data transmission with frequencies up to 1000 MHz

IEC 61156 (all parts), Multicore and symmetrical pair/quad cables for digital communications

IEC 61156-1, Multicore and symmetrical pair/quad cables for digital communications – Part 1: Generic specification

IEC 61156-6, Multicore and symmetrical pair/quad cables for digital communications – Part 6: Symmetrical pair/quad cables with transmission characteristics up to 1 000 MHz – Work area wiring – Sectional specification