

INTERNATIONAL STANDARD

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**Generic cabling systems – Specification for the testing of balanced communication cabling in accordance with ISO/IEC 11801 –
Part 2-23: Cord and work area cord category 7 – Blank detail specification**

**Systèmes de câblage générique – Spécification relative aux essais de câblages de télécommunications symétriques selon l'ISO/IEC 11801 –
Partie 2-23: Cordons et cordons de zone de travail de catégorie 7 – Spécification particulière cadre**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**GENERIC CABLING SYSTEMS –
SPECIFICATION FOR THE TESTING OF BALANCED
COMMUNICATION CABLING IN ACCORDANCE WITH ISO/IEC 11801 –**

**Part 2-23: Cord and work area cord category 7 –
Blank detail specification**

FOREWORD

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International Standard IEC 61935-2-23 has been prepared by IEC technical committee 46: Cables, wires, waveguides, R.F. connectors, R.F. and microwave passive components and accessories.

The text of this standard is based on the following documents:

FDIS	Report on voting
46/556/FDIS	46/562/RVD

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

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

A list of all parts in the IEC 61935 series, published under the general title *Generic cabling systems – Specification for the testing of balanced communication cabling in accordance with ISO/IEC 11801*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

The committee has decided that the contents of this publication will remain unchanged until the stability date 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

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- withdrawn,
- replaced by a revised edition, or
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**GENERIC CABLING SYSTEMS –
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**Part 2-23: Cord and work area cord category 7
Blank detail specification**

1 Scope

This part of IEC 61935, which is a blank detail specification, describes cords and work area cords category 7, as defined in ISO/IEC 11801 series.

According to the above cabling specifications, these cords are category 7 compliant for which the requirements are given in ISO/IEC 11801 series.

This specification should be used in conjunction with IEC 61935-2, IEC 61156-1 and IEC 61156-6 and IEC 60603-7-7. The blank detail specification determines the layout and style for detail specifications describing cords with transmission characteristics up to 600 MHz for digital communications. Detail specifications, based on the blank detail specification, may be prepared by a national organization, a manufacturer, or a user.

Test configuration applicable to cords is detailed in IEC 61935-2.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60603-7-7, *Connectors for electronic equipment – Part 7-7: Detail specification for 8-way, shielded, free and fixed connectors for data transmission with frequencies up to 600 MHz*

IEC 60794-1-22, *Optical fibre cables – Part 1-22: Generic specification – Basic optical cable test procedures – Environmental tests methods*

IEC 61156-1:2007, *Multicore and symmetrical pair/quad cables for digital communications – Part 1: Generic specification*

IEC 61156-5, *Multicore and symmetrical pair/quad cables for digital communications – Part 5: Symmetrical pair/quad cables with transmission characteristics up to 1 000 MHz - Horizontal floor wiring – Sectional specification*

IEC 61156-6:2010, *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*

IEC 61156-6:2010/AMD1:2012

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

IEC 62012-1:2002, *Multicore and symmetrical pair/quad cables for digital communications to be used in harsh environment – Part 1: Generic specification*

ISO/IEC 11801, *Information technology – Generic cabling for customer premises*

ISO/IEC 24702, *Information technology – Generic cabling – Industrial premises*

3 Guidance for preparation of detail specifications

It is necessary to keep the transmission characteristics indicated in the relevant sectional specification for the referenced category number, i.e. 7 and the characteristic impedance.

The detail specification shall be written in accordance with the layout of the blank detail specification, which forms part of this standard. When a characteristic does not apply, then na (for not applicable) should be entered in the appropriate space.

When a characteristic applies but a specific value is not considered necessary, then ns (for not specified) should be entered in the appropriate space. When ns is used, the appropriate requirement in the sectional specification should apply.

The numbers shown in brackets in this and the following pages correspond to the following items of required information, which should be entered in the spaces provided.

- [1] Name and address of the organization that has prepared the document.
- [2] IEC document number, issue number and date of issue.
- [3] Address of the organization from which the document is available.
- [4] Related documents.
- [5] Any other reference to the cable, national reference, trade name, etc.
- [6] A complete description of the cord which shall include
 - a) type and number of elements;
 - b) nominal impedance;
 - c) screening;
 - d) application;
 - e) Specific category of cord, cable and connectors;
 - f) other distinguishing performance characteristics.

EXAMPLE 4-pair, shielded twisted pair cable for use in work area wiring, having a nominal impedance of 100 Ω , and meeting the transmission requirements of category 7 and the coupling attenuation requirements of type I.

- [7] Details of the cable material and construction.
- [8] Special requirements for bending radius or operating temperatures.
- [9] List of cable characteristics. They are separated into electrical, transmission, mechanical and environmental characteristics.

The recommended environmental severities are derived from the MICE table requirements of ISO/IEC 24702. These recommendations were made to better reflect the cable behaviour.

It should be noted that ingress requirements using particles is not applicable to a cable.

The temperature requirements are addressed in [8]. Rapid change of temperature is irrelevant for cables.