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Second edition
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Multicore and symmetrical pair/quad cables for digital communications -

Part 6-1: Symmetrical pair/quad cables with transmission characteristics up to 1 000 MHz – Work area wiring – Blank detail specification

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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FOREWORD

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International Standard IEC 61156-6-1 has been prepared by subcommittee 46C: Wires and symmetric cables, of IEC technical committee 46: Cables, wires, waveguides, r.f. connectors, r.f. and microwave passive components and accessories.

This second edition cancels and replaces the first edition published in 2002. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) new requirements for new cables Cat6_A, Cat7_A for 10 GBase-T applications;

b) revised requirements and tests for the cables.

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

FDIS	Report on voting
46C/819/FDIS	46C/827/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.

This specification is to be used in conjunction with IEC 61156-1 and IEC 61156-6.

A list of all parts of the IEC 61156 series, under the general title *Multicore and symmetrical pair/quad cables for digital communications*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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

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- withdrawn;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

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

MULTICORE AND SYMMETRICAL PAIR/QUAD CABLES FOR DIGITAL COMMUNICATIONS –

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1 Scope

This paart of IEC 61156 describes symmetrical pair/quad cables intended for working area cabling in class D, E, E_A, F and F_A channels (Cat 5e, Cat 6, Cat 6_A, Cat 7, Cat 7_A) as defined in ISO/IEC 11801 and ISO/IEC 24702.

This blank detail specification includes additional recommended environmental characteristics and severities, which are derived from the environmental classifications that are specified for cabling for industrial environments.

NOTE Cabling for various severities of industrial environments is specified in ISO/IEC 24702. Environmental classifications are presented in ISO/IEC 24702 with three levels of severity for four areas: mechanical, ingress, climatic, and electromagnetic: thus, in tabular form, they are referred to as the "MICE tables".

The blank detail specification determines the layout and style for detail specifications describing symmetrical pair/quad cables with transmission characteristics up to 1 000 MHz for digital communications. Detail specifications, based on the blank detail specification, may be prepared by a national organization, a manufacturer, or a user.

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 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 – Working area wiring – Sectional specification*

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