STANDARD **8482**

Second edition
1993-12-15

# Information technology — Telecommunications and information exchange between systems — Twisted pair multipoint interconnections

*Technologies de l'information — Télécommunications et échange d'informations entre systèmes — Interconnexions multipoints par paire torsadée*

# Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

International Standard ISO/IEC 8482 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 6, *Telecommunications and information exchange between systems*.

This second edition cancels and replaces the first edition (ISO 8482:1987), which has been technically revised.

Annexes A and B of this International Standard are for information only.

# Information technology — Telecommunications and information exchange between systems — Twisted pair multipoint interconnections

## 1 Scope

1.1 This International Standard specifies the physical medium characteristics for

- twisted pair multipoint interconnections in either 2-wire or 4-wire network topology in order to provide for half duplex or duplex data transmission capability, respectively;

- a binary and bi-directional signal transfer of the interconnected endpoint systems;

- the electrical and mechanical design of the endpoint system branch cables and the common trunk cable, which may be up to 1 200 m in length;

- the component measurements of the integrated circuit type generators and receivers within the endpoint systems;

- the applicable data signalling rate up to 12,5 Mbit/s.

1.2 The defined electrical component characteristics and measurements are in close conformance with the twisted pair point-to-point characteristics given in ITU-T Recommendation V.11.

1.3 This International Standard does not describe a complete physical interface and has no functional interface characteristics, such as

- number of interchange data and control circuits;

- type, size and pin allocation of the endpoint system and branch trunk cable connectors;

- data and control signal encoding;

- time relations between signals on the interchange circuits;

- mode of synchronous or asynchronous transmission;

- signal quality for transmission and reception.

1.4 This International Standard does not specify special environmental conditions, such as galvanic isolation, electromagnetic interference (EMI), radio frequency interference (RFI), and human safety. This may form the subject of a future amendment.

1.5 This International Standard is primarily a component specification. It is not sufficiently specified for satisfactory interoperation in all possible configurations. It is the responsibility of implementors to ensure that their intended configuration will allow satisfactory interoperation.

1.6 This International Standard may be combined with any appropriate set of functional and additional environmental characteristics so as to meet the practical data transmission requirements in the field of local or wide area networks.

## 2 Normative reference

The following ITU-T Recommendation contains certain provisions which, through reference in this text, constitutes provisions of this International Standard. At the time of publication, the edition indicated was valid. All CCITT Recommendations and International Standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the recommendation indicated below. Members of IEC and ISO maintain registers of currently valid International Standards. The ITU-T Secretariat maintains a list of currently valid ITU-T Recommendations.