TECHNICAL SPECIFICATION

**ISO/TS 16553**

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# Road vehicles — Data cables — Test methods and requirements

*Véhicules routiers — Câbles de données — Méthodes d'essai et exigences*

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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# Foreword

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Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO/TS 16553 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 3, *Electrical and electronic equipment*.

# Road vehicles — Data cables — Test methods and requirements



## 1 Scope

This Technical Specification specifies test methods, requirements for screened and unscreened, and sheathed and unsheathed twisted pair data cables, and coaxial cables intended for use in road vehicle applications. For sheathed cables, the cables are in accordance with ISO/DIS 14572. See ISO/DIS 6722 for temperature class ratings.

## 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.

ISO/DIS 6722:2002, *Road vehicles — 60 V and 600 V single-core cables — Dimensions, test methods and requirements*

ISO/DIS 14572:2006, *Road vehicles — Round, screened and unscreened 60 V and 600 V multi-core sheathed cables — Test methods and requirements for basic and high performance cables*

ASTM D 4566, *Standard Test Methods for Electrical Performance Properties of Insulations and Jackets for Telecommunications Wire and Cable*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

**3.1**
**capacitance**
property of a system of conductors and dielectrics which permits the storage of electrically separated charges, when potential differences exist between the conductors

**3.2**
**characteristic impedance**
total opposition that a circuit presents to the flow of an alternating current, specifically the complex quotient of voltage divided by current

**3.3**
**screen (screened, electromagnetic screen)**
screen of conductive material intended to reduce the penetration and/or radiation of a varying electromagnetic field into an assigned region

**3.4**
**core**
assembly comprising a conductor with its own insulation (and screens if any)