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# INTERNATIONAL STANDARD

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**Information technology – Implementation and operation of customer premises cabling –**

**Part 4: Measurement of end-to-end (E2E) links, modular plug terminated links (MPTLs) and direct attach cabling**

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## **INFORMATION TECHNOLOGY – IMPLEMENTATION AND OPERATION OF CUSTOMER PREMISES CABLING –**

### **Part 4: Measurement of end-to-end (E2E) links, modular plug terminated links (MPTLs) and direct attach cabling**

#### **FOREWORD**

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International Standard ISO/IEC 14763-4 was prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

This second edition cancels and replaces the first edition published in 2018. This edition constitutes a technical revision.

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

- measurement of the transmission performance of modular plug terminated link (MPTL) and direct attach cabling were added.
- Additional requirements of test head designs of E2E link were introduced.

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

FDIS	Report on voting
JTC1-SC25/2997/FDIS	JTC1-SC25/3010/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 of the ISO/IEC 14763 series, published under the general title *Information technology – Implementation and operation of customer premises cabling*, can be found on the IEC and ISO websites.

The contents of the corrigendum 1 (2022-09) have been included in this copy.

## INTRODUCTION

The testing of balanced cabling channels in accordance with ISO/IEC 11801-1 does not verify the performance of the free connector at each end of the channel.

This document describes the measurement of three cabling structures which verifies the performance of their terminating connectors. These are:

- a) end-to-end (E2E) link of ISO/IEC 11801-3,
- b) modular plug terminated link (MPTL) of ISO/IEC TR 11801-9910,
- c) direct attach cabling of ISO/IEC TR 11801-9907.

This measurement includes the transmission performance of the connector components which terminate the cabling under test.

## **INFORMATION TECHNOLOGY – IMPLEMENTATION AND OPERATION OF CUSTOMER PREMISES CABLING –**

### **Part 4: Measurement of end-to-end (E2E) links, modular plug terminated links (MPTLs) and direct attach cabling**

#### **1 Scope**

This part of ISO/IEC 14763 specifies the measurement of two- and four-pair balanced cabling of

- a) end-to-end (E2E) link Class D, E and E<sub>A</sub>;
- b) modular plug terminated links (MPTLs) of Class D, E, E<sub>A</sub>, F, F<sub>A</sub> and of Class I and II;
- c) direct attach cabling of Class D, E, E<sub>A</sub>, F, F<sub>A</sub> and of Class I and II.

The free connectors which terminate two and four pairs in field and laboratory conditions are included.

#### **2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 60512-27-100, *Connectors for electronic equipment – Tests and measurements – Part 27-100: Signal integrity tests up to 500 MHz on 60603-7 series connectors – Tests 27a to 27g*

IEC 61935-1:2019, *Specification for the testing of balanced and coaxial information technology cabling – Part 1: Installed balanced cabling as specified in ISO/IEC 11801 and related standards*

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

ISO/IEC 11801-1, *Information technology – Generic cabling for customer premises – Part 1: General requirements*

ISO/IEC 11801-3, *Information technology – Generic cabling for customer premises – Part 3: Industrial premises*

ISO/IEC TR 11801-9907, *Information technology – Generic cabling systems – Part 9907: Specifications for direct attach cabling*

ISO/IEC TR 11801-9910, *Information technology – Generic cabling systems – Part 9910: Specifications for modular plug terminated link cabling*