



ISO/IEC TR 11801-9910

Edition 1.0 2020-06

# TECHNICAL REPORT

---

**Information technology – Generic cabling for customer premises –  
Part 9910: Specifications for modular plug terminated link cabling**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

---

ICS 35.200

ISBN 978-2-8322-8492-6

**Warning! Make sure that you obtained this publication from an authorized distributor.**

## CONTENTS

|  |    |
|--|----|
| FOREWORD.....  | 3  |
| INTRODUCTION.....  | 4  |
| 1 Scope.....   | 5  |
| 2 Normative references .....   | 5  |
| 3 Terms, definitions, abbreviated terms and symbols.....   | 5  |
| 3.1 Terms and definitions.....   | 5  |
| 3.2 Abbreviated terms.....   | 5  |
| 3.3 Symbols.....   | 6  |
| 4 Specifications .....   | 6  |
| 5 MPTL configuration .....   | 6  |
| 6 Performance specifications.....  | 7  |
| 6.1 General.....   | 7  |
| 6.2 Return loss .....  | 7  |
| 6.3 Insertion loss .....   | 7  |
| 6.4 NEXT.....  | 7  |
| 6.5 PS NEXT .....  | 7  |
| 6.6 ACR-N.....   | 7  |
| 6.7 PS ACR-N.....  | 7  |
| 6.8 ACR-F .....  | 7  |
| 6.9 PS ACR-F.....  | 7  |
| 6.10 TCL .....   | 8  |
| 6.11 ELTCTL .....  | 8  |
| 6.12 Coupling attenuation.....   | 8  |
| 6.13 Alien (exogenous) crosstalk .....   | 8  |
| 6.14 Direct current loop resistance .....  | 8  |
| 6.15 Direct current resistance unbalance.....  | 8  |
| 6.16 Propagation delay.....  | 8  |
| 6.17 Delay skew .....  | 8  |
| 7 MPTL cabling performance .....   | 8  |
| 7.1 General.....   | 8  |
| 7.2 Reference performance testing .....  | 8  |
| 7.3 Installation performance testing .....   | 9  |
| 7.4 Installation performance testing of MPTLs.....   | 9  |
| 8 Testing of MPTLs .....   | 11 |
| Bibliography.....  | 12 |
| Figure 1 – MPTL configurations .....   | 6  |
| Table 1 – Test regime for reference performance and installation performance –<br>MPTLs of Classes D, E, E <sub>A</sub> , F, F <sub>A</sub> , I and II ..... | 10 |

## INFORMATION TECHNOLOGY – GENERIC CABLING FOR CUSTOMER PREMISES –

### Part 9910: Specifications for modular plug terminated link cabling

#### FOREWORD

- 1) 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.
- 2) The formal decisions or agreements of IEC and ISO on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC and ISO National bodies.
- 3) IEC and ISO documents have the form of recommendations for international use and are accepted by IEC and ISO National bodies in that sense. While all reasonable efforts are made to ensure that the technical content of IEC and ISO documents is accurate, IEC and ISO cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC and ISO National bodies undertake to apply IEC and ISO documents transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC and ISO document and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC and ISO do not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC and ISO marks of conformity. IEC and ISO are not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this document.
- 7) No liability shall attach to IEC and ISO or their directors, employees, servants or agents including individual experts and members of its technical committees and IEC and ISO National bodies for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this ISO/IEC document or any other IEC and ISO documents.
- 8) Attention is drawn to the Normative references cited in this document. Use of the referenced publications is indispensable for the correct application of this document.
- 9) Attention is drawn to the possibility that some of the elements of this ISO/IEC document may be the subject of patent rights. IEC and ISO shall not be held responsible for identifying any or all such patent rights.

The main task of IEC and ISO technical committees is to prepare International Standards. However, a technical committee may propose the publication of a Technical Report when it has collected data of a different kind from that which is normally published as an International Standard, for example "state of the art".

ISO/IEC TR 11801-9910, which is a Technical Report, was prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

The list of all currently available parts of the ISO/IEC 11801 series, under the general title *Information technology – Generic cabling for customer premises*, can be found on the IEC and ISO websites.

The text of this Technical Report is based on the following documents:

| DTR                | Report on voting     |
|--------------------|----------------------|
| JTC1-SC25/2924/DTR | JTC1-SC25/2941/RVDTR |

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

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

## INTRODUCTION

This document provides definitions and examples of modular plug terminated links (MPTL). It provides performance specifications for Classes D, E, E<sub>A</sub>, F, F<sub>A</sub>, I and II modular plug terminated links that can also be used to verify the performance of field terminated modular plug connectors.

## INFORMATION TECHNOLOGY – GENERIC CABLING FOR CUSTOMER PREMISES –

### Part 9910: Specifications for modular plug terminated link cabling

#### 1 Scope

This part of ISO/IEC 11801, which is a Technical Report, provides definitions for, and examples of, modular plug terminated link configurations.

This document provides performance specifications for Classes D, E, E<sub>A</sub>, F, F<sub>A</sub>, I and II modular plug terminated links.

Test methods are provided in Clause 8 and are specified in ISO/IEC 14763-4:–1.

#### 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.

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

---

<sup>1</sup> To be published. Stage at the time of publication: ISO/IEC CDV 14763-4:2020.