

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE



**Specification for the testing of balanced and coaxial information technology cabling –**

**Part 1-2: Installed balanced cabling as specified in ISO/IEC 11801 – Additional requirements for measurement of resistance imbalance with field test instrumentation**

**Spécification relative aux essais de câblages symétriques et coaxiaux des technologies de l'information –**

**Partie 1-2: Câblages symétriques installés tels que spécifiés dans l'ISO/IEC 11801 – Exigences supplémentaires pour le mesurage de l'asymétrie**



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IEC Central Office  
3, rue de Varembe  
CH-1211 Geneva 20  
Switzerland

Tel.: +41 22 919 02 11  
[info@iec.ch](mailto:info@iec.ch)  
[www.iec.ch](http://www.iec.ch)

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**SPECIFICATION FOR THE TESTING OF BALANCED AND COAXIAL  
INFORMATION TECHNOLOGY CABLING –**
**Part 1-2: Installed balanced cabling as specified in ISO/IEC 11801 –  
Additional requirements for measurement of resistance unbalance  
with field test instrumentation**

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The text of this International Standard is based on the following documents:

FDIS	Report on voting
46/695/FDIS	46/702/RVD

Full information on the voting for the approval of this International Standard 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.

A list of all parts in the IEC 61935 series, published under the general title *Specification for the testing of balanced and coaxial information technology cabling*, can be found on the IEC website.

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## SPECIFICATION FOR THE TESTING OF BALANCED AND COAXIAL INFORMATION TECHNOLOGY CABLING –

### Part 1-2: Installed balanced cabling as specified in ISO/IEC 11801 – Additional requirements for measurement of resistance unbalance with field test instrumentation

#### 1 Scope

This part of IEC 61935 specifies additional reference measurement procedures for measurement of resistance unbalance with field test instrumentation, and the requirements for field tester accuracy to measure resistance unbalance according to the requirements of ISO/IEC 11801-1.

#### 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.

IEC 61935-1, *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*

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

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61935-1 and ISO/IEC 11801-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

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#### 4 Reference measurement procedure for resistance unbalance

##### 4.1 Reference measurement procedure for resistance unbalance within a pair

DC resistance unbalance within a pair shall be calculated for each pair using individual resistance measurements of each conductor within the pair according to Equation (1);

$$Resistance\_Unbalance_{within\_a\_pair} = \left( \frac{|R_1 - R_2|}{R_1 + R_2} \right) 100 \% \quad (1)$$