

INTERNATIONAL STANDARD

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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

Spécification relative aux essais des 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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CONTENTS

| | |
|---|----|
| FOREWORD..... | 3 |
| 1 Scope..... | 5 |
| 2 Normative references | 5 |
| 3 Terms and definitions | 5 |
| 4 Reference measurement procedure for resistance unbalance | 5 |
| 4.1 Reference measurement procedure for resistance unbalance within a pair..... | 5 |
| 4.2 Reference measurement procedure for resistance unbalance between pairs..... | 6 |
| 4.3 Measurement setup for field measurement of resistance unbalance parameters | 6 |
| 5 Field tester requirements for resistance unbalance measurements | 6 |
| 5.1 General..... | 6 |
| 5.2 Data reporting and accuracy | 7 |
| 5.2.1 Detailed results | 7 |
| 5.2.2 Summary results..... | 7 |
| 6 Field tester accuracy performance requirements for resistance unbalance measurements | 8 |
| 7 Accuracy models | 8 |
| 7.1 Error model for DC loop resistance | 8 |
| 7.2 Error model for resistance unbalance..... | 9 |
| 7.3 Comparison to reference measurements | 9 |
| 7.4 Procedures for determining field tester parameters | 9 |
| 7.4.1 General | 9 |
| 7.4.2 Constant error term of DC loop resistance for loop resistance measurements | 9 |
| 7.4.3 Error term proportional to the DC loop resistance for loop resistance measurements | 9 |
| 7.4.4 Constant error term of resistance unbalance for resistance unbalance measurements | 9 |
| 7.4.5 Error term proportional to the DC loop resistance for resistance unbalance measurements | 10 |
| Figure 1 – Measurement setup..... | 6 |
| Table 1 – Additional field test requirements for resistance unbalance measurements..... | 7 |
| Table 2 – Field tester summary reporting requirements for resistance unbalance measurements | 8 |
| Table 3 – Accuracy requirements for resistance unbalance measurements | 8 |

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**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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International Standard IEC 61935-1-2 has been prepared by IEC technical committee TC 46: Cables, wires, waveguides, RF connectors, RF and microwave passive components and accessories.

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.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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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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- ISO Online browsing platform: available at <http://www.iso.org/obp>

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);

$$Resistance_Unbalance_{\text{within_a_pair}} = \left(\frac{|R_1 - R_2|}{R_1 + R_2} \right) 100 \% \quad (1)$$