



## DRAFT TANZANIA STANDARD

(Draft for comments only)

---

**Coaxial communication cables - Part 1-100: Electrical  
test methods - General requirement**

**TANZANIA BUREAU OF STANDARDS**

---

## National Foreword

### 1 Introduction

This draft Tanzania Standard is being prepared by the Communication Equipment Technical Committee, under the supervision of the Electrical Engineering Divisional Standards Committee (EEDC)

This draft Tanzania Standard is an adoption of the International Standard **IEC 61196-1-100:2015** *Coaxial communication cables - Part 1-100: Electrical test methods - General requirement* which has been prepared by the International Electrotechnical Commission.

### 2 Preamble

This draft Tanzania Standard gives the general requirements and conditions for electrical tests to be performed on coaxial communication cables.

### 3 Terminology and conventions

Some terminologies and certain conventions are not identical with those used in Tanzania Standards; attention is drawn especially to the following: -

- 1) The comma has been used as a decimal marker for metric dimensions. In Tanzania Standards, it is current practice to use “full point” on the baseline as the decimal marker.
- 2) Where the words “International Standard(s)” appear, referring to this standard they should read “Tanzania Standard(s)”.

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

---

**Coaxial communication cables –  
Part 1-100: Electrical test methods – General requirements**

**Câbles coaxiaux de communication –  
Partie 1-100: Méthodes d'essais électriques – Exigences générales**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

COMMISSION  
ELECTROTECHNIQUE  
INTERNATIONALE

---

ICS 33.120.10

ISBN 978-2-8322-2557-8

**Warning! Make sure that you obtained this publication from an authorized distributor.  
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.**

## CONTENTS

FOREWORD .....	3
1 Scope .....	5
2 Normative references.....	5
3 Terms and definitions .....	5
4 Sample .....	5
4.1 Cable under test (CUT) .....	5
4.2 Pre-conditioning .....	5
5 Tests .....	5
6 Test conditions .....	6
6.1 Ambient conditions .....	6
6.2 Tolerance on temperature values .....	6
6.3 Frequency range and stability for frequency-related measurements .....	6
7 Test report.....	6
Annex A (informative) Electrical test methods of the IEC 61196-1-1xx series .....	7
Bibliography .....	8

Draft for stakeholders' comments only

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**COAXIAL COMMUNICATION CABLES –****Part 1-100: Electrical test methods –  
General requirements**

## FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

2) The formal decisions or agreements of IEC 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 National Committees.

3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC 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 National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.

5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.

6) All users should ensure that they have the latest edition of this publication.

7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees 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 IEC Publication or any other IEC Publications.

8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.

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

International Standard IEC 61196-1 -100 has been prepared by subcommittee 46A: Coaxial cables, of IEC technical committee 46: Cables, wires, waveguides, r.f. connectors, r.f. and microwave passive components and accessories.

This second edition cancels and replaces the edition published in 2005. This edition constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:

- a) ambient conditions are specified more in detail;
- b) the list of related standards of the IEC 61196 series was moved to Annex A.

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

FDIS	Report on voting
46A/1231/FDIS	46A1235/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.

This standard is intended to be read in conjunction with IEC 61196-1. It is based on the second edition (2005) of that standard.

A list of all parts of the IEC 61196 series, under the general title: *Coaxial communication cables*, can be found on the IEC website.

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## COAXIAL COMMUNICATION CABLES –

### Part 1-100: Electrical test methods – General requirements

#### 1 Scope

This part of IEC 61196 gives the general requirements and conditions for electrical tests to be performed on coaxial communication cables and applies to the IEC 61196-1-1xx series, which specifies electrical test methods for coaxial communication cables.

Further test details (for example, temperature, duration) and/or test requirements are given in the relevant cable standard.

#### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61196 -1, *Coaxial communication cables – Part 1: Generic specification – General, definitions and requirements*

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61196-1 apply.

#### 4 Sample

##### 4.1 Cable under test (CUT)

Unless otherwise specified in the relevant test method, the length of the CUT shall be selected to take into account the dynamic range of the measuring equipment and the frequency range specified to yield the required level of accuracy. The length should be measured with an accuracy better than 1 % unless otherwise stated in the relevant cable specification.

##### 4.2 Pre-conditioning

The CUT shall be pre-conditioned at a constant ambient temperature for such a time as to allow the specimen temperature to stabilize according to 6.1.

#### 5 Tests

The tests required and performance characteristics applicable to each type of cable are given in the relevant cable standard.

*Draft for stakeholders' comments only*