



EEDC6 (5076)P3

IEC 61196-1

DRAFT TANZANIA STANDARD

(Draft for comments only)

Coaxial communication cables - Part 1: Generic specification - General, definitions and requirements

Draft for stakeholders' comments only

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 61196-1:2005** *Coaxial communication cables - Part 1: Generic specification - General, definitions and requirements* which has been prepared by the International Electrotechnical Commission.

2 Preamble

This draft Tanzania Standard specifies the general requirements, the definitions and the requirements for the design and test methods of 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)".

This is a preview - click here to buy the full publication

**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

61196-1

Deuxième édition
Second edition
2005-06

Câbles coaxiaux de communication –

**Partie 1:
Spécification générique –
Généralités, définitions et exigences**

Coaxial communication cables –

**Part 1:
Generic specification –
General, definitions and requirements**

© IEC 2005 Droits de reproduction réservés — Copyright - all rights reserved

Aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'éditeur.

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission, 3, rue de Varembe, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE **N**

For price, see current catalogue

CONTENTS

FOREWORD.....	5
1 Scope.....	9
2 Normative references	9
3 Definitions	11
3.1 dielectric types	11
3.2 braiding.....	11
4 Materials and cable construction	17
4.1 General	17
4.2 Visual examination	17
4.3 Measurement of dimensions.....	19
4.4 Cable construction	19
4.5 Dielectric.....	21
4.6 Outer conductor or screen.....	23
4.7 Jacket or sheath.....	23
4.8 Armouring	25
4.9 Messenger wire.....	27
5 Ratings and characteristics	27
6 Identification and marking.....	27
6.1 Cable identification.....	27
7 Tests and test methods	29
8 Quality.....	29
9 Delivery and storage	29
Table 1 – Braiding formulae variables	11
Table 2 – Armouring against hazards.....	27

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COAXIAL COMMUNICATION CABLES –**Part 1: Generic specification –
General, definitions and 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 provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.

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 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 first edition published in 1995. This edition constitutes a technical revision.

The main changes with respect to the previous edition are listed below:

- a) a general revision;
- b) the test methods that are included in the first edition are now being developed as separate parts of IEC 61196-1 as IEC 61196-1-XXX and in the IEC 62153 series.

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

FDIS	Report on voting
46A/715/FDIS	46A/725/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.

IEC 61196 consists of the following parts, under the general title *Coaxial communication cables*:

- Part 1: Generic specification – General, definitions and requirements
- Part 1-1: Capability Approval for Coaxial communication cables – Generic Specification 1
- Part 1-1XX: Electrical test methods¹
- Part 1-2XX: Environmental test methods¹
- Part 1-3XX: Mechanical test methods¹
- Part 2: Sectional specification for semi-rigid radio-frequency and coaxial cables with polytetrafluoroethylene (PTFE) insulation
- Part 3: Sectional specification for coaxial cables for use in local area networks
- Part 3-1: Coaxial cables for digital communication in horizontal floor wiring – Section 1: Detail specification for cables of 500 m reach and up to 10 Mb/s
- Part 3-2: Coaxial cables for digital communication in horizontal floor wiring – Detail specification for coaxial cables with solid dielectric for local area networks for 185 m reach and up to 10 Mb/s.
- Part 3-3: Coaxial cables for digital communication in horizontal floor wiring – Detail specification for coaxial cables with foamed dielectric for local area networks of 185 m reach and up to 10 Mb/s
- Part 3-4: Detail specification for coaxial cables with optimised braid outer conductor (screen) for use in local area networks for 185 m reach and up to 10 Mb/s 1
- Part 4: Sectional specification for radiating cables
- Part 5: Sectional specification for CATV trunk and distribution cables 1
- Part 5-1: Blank detail specification for CATV trunk and distribution cables 1
- Part 6: Sectional specification for CATV drop cables 1
- Part 6-1: Blank detail specification for CATV drop cables 1

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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

¹ Under consideration.

COAXIAL COMMUNICATION CABLES –

Part 1: Generic specification – General, definitions and requirements

1 Scope

This part of IEC 61196 specifies the general requirements, the definitions and the requirements for the design and test methods of coaxial communication cables.

2 Normative references

The following referenced documents are indispensable for the application 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 60028:1925, *International standard of resistance for copper*

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*
Amendment 1 (1992)

IEC 60068-2-20:1979, *Environmental testing – Part 2: Tests – Test T: Soldering*
Amendment 2 (1987)

IEC 60332 (all parts), *Tests on electric and optical fibre cables under fire conditions*

IEC 60754-1: 1994, *Test on gases evolved during combustion of materials from cables – Part 1: Determination of the amount of halogen acid gas*

IEC 60754-2:1991, *Test on gases evolved during combustion of electric cables – Part 2: Determination of degree of acidity of gases evolved during the combustion of materials taken from electric cables by measuring pH and conductivity*

IEC 60811-1-1, *Common test methods for insulating and sheathing materials of electric cables – Part 1-1: Methods for general application – Measurement of thickness and overall dimensions – Tests for determining the mechanical properties*

IEC 60811-1- 2:1985, *Common test methods for insulating and sheathing materials of electric cables – Part 1: Methods for general application – Section Two: Thermal ageing methods*
Amendment 1 (1989)
Amendment 2 (2000)

IEC 60811-4-1, *Insulating and sheathing materials of electric and optical cables – Common test methods – Part 4-1: Methods specific to polyethylene and polypropylene compounds – Resistance to environmental stress cracking – Measurement of the melt flow index – Carbon black and/or mineral filler content measurement in polyethylene by direct combustion – Measurement of carbon black content by thermogravimetric analysis (TGA) – Assessment of carbon black dispersion in polyethylene using a microscope*

IEC 61196-1(all parts), *Coaxial communication cables*

IEC 62153 (all parts), *Metallic communication cable test methods*

Draft for stakeholders' comments only