



EDC6 (4041) DTZS
IEC 60794-1-2:2021

DRAFT TANZANIA STANDARD

(Draft for comments only)

Optical fibre cables - Part 1-2: Generic specification - Basic optical cable test procedures - General guidance

TANZANIA BUREAU OF STANDARDS

1 National Foreword

This draft Tanzania Standard is being prepared by the Telecommunications and Information Technology Technical Committee, under the supervision of the Electrotechnical divisional standards committee (EDC)

This draft Tanzania Standard is an adoption of the International Standard **IEC 60794-1-2:2021** Optical fibre cables - Part 1-2: Generic specification - Basic optical cable test procedures - General guidance, Which has been prepared by the International Electrotechnical Commission

2 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)”.

CONTENTS

| | |
|---|----|
| FOREWORD..... | 3 |
| INTRODUCTION..... | 5 |
| 1 Scope..... | 6 |
| 2 Normative references | 7 |
| 3 Terms and definitions | 7 |
| 4 General guidance | 7 |
| 4.1 Test procedure format..... | 7 |
| 4.2 Standard atmospheric conditions..... | 7 |
| 4.3 Symbols and abbreviated terms | 8 |
| 4.4 Safety and environmental aspects | 8 |
| 4.5 Calibration | 8 |
| 4.5.1 Calibration process | 8 |
| 4.5.2 Assessment of uncertainties | 8 |
| 4.6 Preconditioning | 9 |
| 4.7 Guide to qualification sampling..... | 9 |
| 4.8 Optical launch conditions | 9 |
| 4.9 Standard optical test wavelengths | 9 |
| Annex A (informative) Cross-references between new and old test method numbers..... | 10 |
| Bibliography | 16 |
| | |
| Table 1 – Document overview..... | 6 |
| Table 2 – Standard optical test wavelengths..... | 9 |
| Table 3 – Alternative optical test wavelengths..... | 9 |
| Table A.1 – IEC 60794-1-1xx series | 10 |
| Table A.2 – IEC 60794-1-2xx series | 11 |
| Table A.3 – IEC 60794-1-3xx series | 12 |
| Table A.4 – IEC 60794-1-4xx series | 12 |
| Table A.5 – IEC 60794-1-21 method numbers | 12 |
| Table A.6 – IEC 60794-1-22 method numbers | 14 |
| Table A.7 – IEC 60794-1-23 method numbers | 14 |
| Table A.8 – IEC 60794-1-24 method numbers | 15 |

INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRE CABLES –

Part 1-2: Generic specification – Basic optical cable test procedures – General guidance

FOREWORD

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International Standard IEC 60794-1-2 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics.

This fifth edition cancels and replaces the fourth edition published in 2017. This edition constitutes a technical revision.

This edition includes the following significant technical change with respect to the previous edition:

- a) addition of cross-reference tables listing the new test method numbers and the previous test method numbers.

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

| | |
|--------------|------------------|
| CDV | Report on voting |
| 86A/2009/CDV | 86A/2057/RVC |

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 International Standard is to be used in conjunction with IEC 60794-1-1.

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

A list of all parts in the IEC 60794 series, published under the general title *Optical fibre cables*, 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 web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the document will be

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

INTRODUCTION

A decision has been reached to reorganize the IEC 60794-1-2 set of test methods into single-subject documents. This will be a migration as the existing test methods are revised and as new test methods are promulgated, rather than a wholesale rewrite. Part of this migration is a decision to maintain the traditional letter-number classification and to use a numbering system which maintains connection to the existing numbering system.

The new test method numbering format has been agreed, in line with IEC Secretariat guidelines, to help the cross-referencing from old to new and that will make the updating of the relevant sectional and product specifications easier. Cross-reference tables listing the new test method numbers and the previous test method numbers have been included (see Annex A, Table A.1 to Table A.8).

The format agreed is as follows:

IEC 60794-1-Xnn

where

X = 2nd digit of the old 2-digit reference;

nn = incremental number (starting with old test method number).

For example:

IEC 60794-1-21 method E1 (tensile) becomes IEC 60794-1-101;

IEC 60794-1-22 method F5 (water penetration) becomes IEC 60794-1-205;

IEC 60794-1-23 method G7 (tube kinking) becomes IEC 60794-1-307;

IEC 60794-1-24 method H2 (lightning) becomes IEC 60794-1-402.

Annex A has been added to this document containing a cross-reference between the old and new number scheme.

OPTICAL FIBRE CABLES –
Part 1-2: Generic specification –
Basic optical cable test procedures –
General guidance

1 Scope

This part of IEC 60794-1 applies to optical fibre cables for use with telecommunications equipment and devices employing similar techniques, and to cables having a combination of both optical fibres and electrical conductors.

An objective of this document is to define general requirements and methodology guidance applicable to all of the cable test methods of IEC 60794-1 (all parts).

A second objective of this document is to provide the end user with an overview of the different test methods contained in the different parts of the IEC 60794-1 series, numbered -Xnn. Table 1 shows the different parts.

Table 1 – Document overview

| Test methods | IEC reference | Previous compendium reference | Test method category reference letter |
|--|-----------------|-------------------------------|---------------------------------------|
| General guidance | IEC 60794-1-2 | IEC 60794-1-2 | - |
| Mechanical | IEC 60794-1-1nn | IEC 60794-1-21:2015 | Methods E |
| Environmental | IEC 60794-1-2nn | IEC 60794-1-22:2017 | Methods F |
| Cable elements | IEC 60794-1-3nn | IEC 60794-1-23:2019 | Methods G |
| Electrical | IEC 60794-1-4nn | IEC 60794-1-24:2014 | Methods H |
| <p>NOTE 1 The compendium reference specifications detailed in column 3 will continue in force until all of the test methods therein are revised into the single-subject documents using the new numbering scheme.</p> <p>NOTE 2 For existing test methods, "nn" is the test method number. For new test methods, "nn" is an incremental number following the last test method number for that test category.</p> <p>NOTE 3 Several numbers in the test method numbering sequence are missing. The reasons for these omissions are historical. To avoid confusion, the existing numbering sequence has been retained.</p> | | | |

These documents define test procedures to be used in establishing uniform requirements for the geometrical, transmission, material, mechanical, ageing (environmental exposure) and climatic properties of optical fibre cables, and electrical requirements where appropriate.

Throughout the documents, the wording "optical cable" can also include optical fibre units, microduct fibre units, etc.

The secondary objective of this document is to provide the end user with useful guidance when testing optical fibre cables.

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 60793-1-40, *Optical fibres – Part 1-40: Attenuation measurement methods*

IEC 60793-1-46, *Optical fibres – Part 1-46: Measurement methods and test procedures – Monitoring of changes in optical transmittance*

IEC 60793-2-40, *Optical fibres – Part 2-40: Product specifications – Sectional specification for category A4 multimode fibres*

IEC 60794-1-1, *Optical fibre cables – Generic specification – General*

IEC 60794-1-21:2015, *Optical fibre cables – Part 1-21: Generic specification – Basic optical cable test procedures – Mechanical tests methods*

IEC 60794-1-22:2017, *Optical fibre cables – Part 1-22: Generic specification – Basic optical cable test procedures – Environmental test methods*

IEC 60794-1-23:2019, *Optical fibre cables – Part 1-23: Generic specification – Basic optical cable test procedures – Cable element test methods*

IEC 60794-1-24:2014, *Optical fibre cables – Part 1-24: Generic specification – Basic optical cable test procedures – Electrical test methods*