

Future networks and related fibres needs

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-ES 59012:2003 sisaldab Euroopa standardi ES 59012:2001 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 05.02.2003 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 14.03.2001.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-ES 59012:2003 consists of the English text of the European standard ES 59012:2001.

This standard is ratified with the order of Estonian Centre for Standardisation dated 05.02.2003 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 14.03.2001.

The standard is available from Estonian standardisation organisation.

ICS 33.040.35, 33.180.01

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EUROPEAN SPECIFICATION

ES 59012

SPÉCIFICATION EUROPÉENNE

EUROPÄISCHE SPEZIFIKATION

March 2001

ICS 33.040.35; 33.180.01

English version

Future networks and related fibres needs

This European Specification was approved by CENELEC on 2000-12-16.

CENELEC members are required to announce the existence of this ES in the same way as for an EN and to make the ES available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of the European Specification was prepared by a dedicated Task Force established by the Technical Committee CENELEC TC 86A, Optical fibres and optical fibre cables

The text was discussed by CENELEC TC 86A during its meeting in Copenhagen on 2000-10-02/03.

The resulting draft was submitted to the questionnaire and vote procedure and was approved by CENELEC as ES 59012 on 2000-12-16.

The following date was fixed:

- latest date by which the existence of the ES
has to be announced at national level

(doa) 2001-04-01

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1 Scope

This document has to be considered as an indication of the current view of CENELEC TC 86A regarding today status and possible future evolution of fibre standardization. This is neither a standard nor a recommendation.

2 Definitions

- C, L and S bands are usually understood as respectively 1530-1565 nm, 1565-1625 nm and 1440-1530 nm wavelength range;
- $D(\lambda)$ means chromatic Dispersion coefficient on the wavelength range;
- DCD means Dispersion Compensating Devices;
- DWDM means Dense Wavelength Division Multiplexing;
- 2nd window means 1285-1330 nm;
- SMF means singlemode fibres;
- MMF means multimode fibres;
- POF means Plastic Optical Fibres;
- FTTX means fibre to the X, X being either Curb or Building or Home or Desk.

3 Segmentation of network applications

a) Long distance LD networks

- 1) Applications
 - Traditional operators : backbones
 - New operators : Pan European networks
- 2) Distances
 - 400 to 600 Km
- 3) Bit rates
 - $n \times 2,5 \text{ Gb/s}$ to $n \times 10 \text{ Gb/s}$ to $n \times 40 \text{ Gb/s}$ (n increasing in the future)
- 4) Typical fibre count: up to 288 fibres/cables (increasing in the future)
- 5) Cable type: loose tube or ribbon