EESTI STANDARD EVS-EN 50083-4:2001

Televisioonisignaalide, helisignaalide ja interaktiivsete teenuste kaablivõrgud Osa 4: Passiivsed lairiba seadmed koaksiaalkaabelvõrkudele

Cable networks for television signals, sound signals and interactive services - Part 4: Passive wideband equipment for coaxial cable networks

EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 50083-4:2001 sisaldab Euroopa standardi EN 50083-4 + Corr.:1998 ingliskeelset teksti. Käesolev dokument on jõustatud 19.06.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 50083-4:2001 consists of the English text of the European standard EN 50083-4 + Corr.:1998. This document is endorsed on 19.06.2001 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This standard applies to receiver leads, system outlets, splitters and subscriber taps, passive one and two port devices comprising filters attenuators, equalizers, galvanic isolators, power injectors, cable splices, terminating resistors and transfer points, but excluding coaxial cables	**Scope:** This standard applies to receiver leads, system outlets, splitters and subscriber taps, passive one and two port devices comprising filters attenuators, equalizers, galvanic isolators, power injectors, cable splices, terminating resistors and transfer points, but excluding coaxial cables

ICS 33.060.40

Võtmesõnad: cable television, coaxial cables, components, measuring techniques specifications, sound broadcasting, telecasting, television broadcasting community aerial systems

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50083-4

June 1998

ICS 33.060.40

Supersedes EN 50083-4:1994

Descriptors: Telecasting, cable television, sound broadcasting, community aerial systems, coaxial cables, components, measuring techniques, specifications

English version

Cable networks for television signals, sound signals and interactive services Part 4: Passive wideband equipment for coaxial cable networks

Réseaux de distribution par câbles pour signaux de télévision, signaux de radiodiffusion sonore et services interactifs
Partie 4: Matériels passifs à large bande utilisés dans les réseaux de distribution coaxiale

Kabelnetze für Fernsehsignale, Tonsignale und interaktive Dienste
Teil 4: Passive Breitbandgeräte für koaxiale Kabelnetze

This European Standard was approved by CENELEC on 1998-01-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

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

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FOREWORD

This second edition of the European Standard was prepared by CENELEC Technical Committee TC 209, "Cable networks for television signals, sound signals and interactive services" on the basis of EN 50083-4:1994 and the first amendment to EN 50083-4.

The text of this first amendment was approved by CENELEC on 1998-01-01 with the request to prepare a second edition of EN 50083-4, by incorporating this amendment into the European standard EN 50083-4:1994.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	1998-12-01
- latest date by which national standards conflicting with the EN have to be withdrawn	(dow)	1999-12-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given only for information.
In this standard, annex A is normative, annexes B and C are informative.

CONTENTS

Annexes

1 Scope

1.1 General

Standards of EN 50083 series deal with cable networks for television signals, sound signals and interactive services including equipment, systems and installations

- for headend reception, processing and distribution of television and sound signals and their associated data signals and
- for processing, interfacing and transmitting all kinds of signals for interactive services

using all applicable transmission media.

All kinds of networks like

- CATV-networks,
- MATV-networks and SMATV-networks,
- Individual receiving networks

and all kinds of equipment, systems and installations installed in such networks, are within this scope.

The extent of this standardization work is from the antennas, special signal source inputs to the headend or other interface points to the network up to the system outlet or the terminal input, where no system outlet exists.

The standardization of any user terminals (i.e. tuners, receivers, decoders, multimedia terminals etc.) as well as of any coaxial and optical cables and accessories therefor is excluded.

1.2 Specific scope of this part 4

This standard applies to receiver leads, system outlets, splitters and subscriber taps, passive one and two port equipment comprising filters, attenuators, equalizers, galvanic isolators, power injectors, cable splices, terminating resistors and transfer points, but excluding coaxial cables.

It

- covers the frequency range 5 MHz to 3000 MHz,
- identifies performance requirements for certain parameters,
- lays down data publication requirements for certain parameters,
- stipulates methods of measurements,
- introduces minimum requirements defining quality (Q) grade(s).

There are three Q grades for taps and splitters and two Q grades for passive one and two port equipment.

There is only one Q grade for system outlet and receiver lead. Different networks require the same performance and, when integrating networks, upgrading will be avoided.

Practical experience has shown these types meet most of the technical requirements necessary for supplying a minimum signal quality to the subscribers. This classification shall not be considered as a requirement but as the information for users and manufacturers on the minimum quality criteria of the material required to install networks of different sizes. The system operator has to select appropriate material to meet the minimum signal quality at the subscriber's outlet and to optimize cost/performance, taking into account the size of the network and local circumstances.

All requirements and published data shall be understood as guaranteed values within the specified frequency range and in well matched conditions.

For passive equipment of quality grades other than mentioned above, manufacturers shall specify minimum values for:

- return loss
- isolation
- directivity

using the relevant measurement methods and the presentation of table 1.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 50083		Cable networks for television signals, sound signals and interactive services
EN 50083-1 + A1	1993 1997	Part 1: Safety requirements
EN 50083-2 + A1	1995 1997	Part 2: Electromagnetic compatibility for equipment
EN 50083-3	1998	Part 3: Active wideband equipment for coaxial cable networks
EN 50083-5	1998	Part 5: Headend equipment
EN 50083-7	1996	Part 7: System performance
EN 60068/HD 323	series	Environmental testing/Basic environmental testing procedures
EN 60169-24	1993	Radio frequency connectors - Part 24: Radio-frequency coaxial connectors with screw coupling, typically for use in 75 ohm cable distribution systems (Type F) (IEC 169-24:1991)
EN 60529	1991	Degrees of protection provided by enclosures (IP Code) NOTE: Basic Safety Publication (IEC 529:1989)
HD 134.1 S1	1977	Radio frequency connectors - Part 1: General requirements and measuring methods (IEC 169-1:1965)
HD 134.2 S2	1984	Radio frequency connectors - Part 2: Coaxial unmatched connector (IEC 169-2:1965 + A1:1982)
HD 243 S12	1995	Graphical symbols for use on equipment - Index, survey and compilation of the single sheets (IEC 417:1973 + IEC 417A:1974 to IEC 417M:1994)
HD 571 S1	1990	General principles for the creation of graphical symbols for use on equipment (IEC 416:1988)