

Specification for

**Domestic and similar
electronic equipment.
Interconnection requirements:
peritelevision connector**

The European Standard EN 50049-1 has the status of a British Standard

ICS 33.160.40

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National foreword

This British Standard has been prepared under the direction of the Electrotechnical Sector Board and is the English language version of EN 50049-1 : 1989 *Domestic and electronic equipment interconnection requirements: peritelevision connector* together with its amendments A1 : September 1990, A2 : January 1995, A3 : May 1995 and A4 : November 1996, published by the European Committee for Electrotechnical Standardization (CENELEC).

This British Standard supersedes BS 6552 : 1984 which is withdrawn.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

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English version

Domestic and similar electronic equipment interconnection requirements: peritelevision connector

(includes amendment A1 : 1990 +A2 : 1995 +A3 : 1995 +A4 : 1996)

Prescriptions d'interconnexion des appareils électroniques grand public et analogues: connecteur de péritélévision (inclut l'amendement A1 : 1990 +A2 : 1995 +A3 : 1995 +A4 : 1996)

Kennwerte für die Kleinsignalverbindung zwischen elektronischen Geräten für den Heimgebrauch und ähnliche Anwendungen: Peritelevision Verbindung (enthält Änderung A1 : 1990 +A2 : 1995 +A3 : 1995 +A4 : 1996)

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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 CENELEC General Secretariat has the same status as the official versions.

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CENELEC

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

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Foreword

Reasons for the establishment of this standard

Developments are taking place in the field of peritelevision, namely:

new services related to broadcasting and telecommunications for the public videography (teletext and videotext), direct broadcasting by satellite, etc.;

new applications of video technology: videorecorders, video games, videodiscs, electronic cameras, etc.;

the introduction of computer equipment intended for use in the home.

The domestic television receiver, as a display unit, is an integral part of the system.

It is essential that the individual items of equipment concerned with these new services or applications be capable of use separately or simultaneously and capable of simple operation by a non-specialist user.

Just as high-fidelity audio systems are built up from a number of component units, so will domestic multi-purpose audio-visual systems be constituted in a similar manner.

It has thus become evident that there is a need for a universal means of interconnection between the various component units of these audio-visual systems.

Such is the intention of this European Standard.

The text of EN 50049-1 was approved by CENELEC on 13 September 1988.

The following dates were fixed:

- latest date of announcement of the EN at national level (doa) 1989-01-01
- date of latest publication of a new harmonized standard (dop) 1989-07-01
- date of withdrawal of conflicting national standards (dow) 1989-12-01

Relationship with international standards

International Electrotechnical Commission (IEC) publication 933-1 deals with the same subject, and takes the CENELEC standard into account.

It is also appropriate to draw attention to IEC Publication 608 (HD 387 S1 : 1979) *Interconnections between video tape recorders and television receivers for 625/50 systems*, which is restricted to that specific system, whereas this standard relates to an interconnection system intended to cover a substantially wider scope. Thus in particular, the interconnection as defined in Publication 608 does not provide for simultaneous conveyance, on separate pins, of receiver input and output (audio and video) signals, in order to be processed by a peripheral device.

Reference is also made to IEC Publication 268-15 (HD 483.15 S1 : 1989) *Sound system equipment — Part 15 Preferred matching values for the interconnections of sound system components*.

This publication deals only with audiofrequency signals.

Matching values recommended by the IEC Publication were taken into account as far as possible.

Foreword to amendment A1

During the meeting of CENELEC Technical Committee TC 103, held on 10 June 1988 in Brussels, it was decided to introduce an amendment to EN 50049-1, explaining the purpose of the standard. This text is to be included in subclause 1.1.

The draft of this amendment was submitted to the Unique Acceptance Procedure (UAP).

The text of the draft was approved as Amendment 1 by the CENELEC Technical Board on 11 June 1990.

The following dates were fixed:

- latest date of announcement of the amendment at national level (doa) 1990-12-01
- latest date of publication of an identical amendment to the national standard (dop) 1991-06-01
- latest date of withdrawal of conflicting national standards (dow) 1991-06-01

Foreword to amendment A2

This amendment to EN 50049-1 was prepared by Technical Committee CENELEC TC 103, Electronic entertainment and educational systems for household and similar use.

The text of the draft (prAE) was submitted to the formal vote and was approved by CENELEC as amendment A2 to EN 50049-1 on 1994-07-05.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1995-07-15
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 1995-07-15

This amendment to EN 50049-1 has been developed in the framework of European Directive 92/38/EEC on the adoption of standards for satellite broadcasting of television signals.

Foreword to amendment A3

This amendment to EN 50049-1 was prepared by Technical Committee CENELEC TC 103, Electronic entertainment and educational systems for household and similar use.

The text of the draft (prAE) was submitted to the formal vote and was approved by CENELEC as amendment A2 to EN 50049-1 on 1995-03-06.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1996-03-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 1996-03-01

This amendment to EN 50049-1 has been drafted taking into account new 'Matching values' for the signal on pin 10 of the peritelevision connector, to allow implementation of new standardized applications such as the one covered by the draft standard prEN 50157-1.

Foreword to amendment A4

This amendment was prepared by the Technical Committee CENELEC TC 203, Electronic entertainment and educational systems for household and similar use.

The text of the draft was submitted to the formal vote and was approved by CENELEC as amendment A4 to EN 50049-1 : 1989 on 1996-07-02.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1997-06-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 1997-06-01

This document specifies sound levels of NICAM and D2MAC services. It also specifies the residual value of the energy dispersal signal in case of satellite reception in PAL or SECAM systems.

1 Introduction

1.1 Object

1.1.1 This standard defines the interconnection characteristics of peritelevision devices, both between themselves and with television receivers (monochrome or colour).

The interconnections covered by this standard are at baseband (video and audio) or for digital signals.

For the purpose of defining conformance, this standard specifies the types and related groups of signals, composite video, audio, primary colour and control that shall be present on the connectors. The levels and impedances together with the tolerances on these values are also specified.

The manner in which the signals on the connector are processed within the products incorporating the connectors and the presentation of the results of such processing to the user is outside the scope of this standard. These details depend upon the system involved, e.g. PAL or SECAM and the specification of the product.

1.1.2 This standard lays down collectively the electrical matching characteristics (type of signals, voltage and impedance values), dimensional, mechanical and electrical characteristics of the connectors, type and wiring of interconnection cordsets.

1.1.3 Attention is drawn to the fact that the interconnection covered by this standard shall in any circumstances meet the safety requirements specified in IEC Publication 65 (HD 195 S6:1989) and the electromagnetic compatibility requirements specified in the appropriate publications.

1.2 Field of application

1.2.1 This standard applies to the connector socket mounted on various devices that are components of domestic audio-visual systems, and includes the designation of contacts, the type of interchanged signals and the matching values of voltage and impedance. This standard does not apply to equipment so small that its size is not compatible with the dimensions of the socket.

1.2.2 It applies also to the plug fitted to the end of interconnection cordsets.

1.2.3 It covers the interconnection cordsets themselves (type of conductors, wiring).

1.2.4 Permanent connection of several pieces of equipment which may be used simultaneously or otherwise is ensured:

- either by fitting each piece of equipment with a suitable number of connectors;
- or by a single connector on each piece of equipment linked to a central interconnection and switching device.

1.2.5 The user should be informed about the possible applications that are provided by a device.

2 Characteristics of the interconnections (see table 1)

General remarks:

All input and output signals may be present simultaneously.

All input and output signals are defined and measured taking into account the appropriate CCIR and IEC Publications.