SLOVENSKI STANDARD

SIST EN 62286:2004

september 2004

Servisni diagnostični vmesnik za izdelke in omrežja zabavne elektronike – Uporaba za IEEE 1394 (IEC 62286:2003)

Service diagnostic interface for consumer electronics products and networks - Implementation for IEEE 1394 (IEC 62286:2003)

ICS 33.160.01

Referenčna številka
SIST EN 62286:2004(en)

EUROPEAN STANDARD **EN 62286**

NORME EUROPÉENNE

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ICS 35.200; 35.240.99

English version

Service diagnostic interface for consumer electronics products and networks – Implementation for IEEE 1394
(IEC 62286:2003)

Interface de diagnostic de service pour les produits électroniques grand public et les réseaux – Mise en oeuvre pour l'IEEE 1394 (CEI 62286:2003)

Kundendienst-Diagnoseschnittstelle für Geräte und Netzwerke der Unterhaltungselektronik – Anwendung für IEEE 1394 (IEC 62286:2003)

This European Standard was approved by CENELEC on 2004-03-01. 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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

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Foreword

The text of the International Standard IEC 62286:2003, prepared by IEC TC 100, Audio, video and multimedia systems and equipment, was submitted to the formal vote and was approved by CENELEC as EN 62286 on 2004-03-01 without any modification.

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) 2005-03-01

– latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2007-03-01

Annex ZA has been added by CENELEC

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Endorsement notice

The text of the International Standard IEC 62286:2003 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE Where an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 61883-1	2003	Consumer audio/video equipment - Digital interface Part 1: General	EN 61883-1	2003
IEEE Std 1212	2001	Microprocessor Systems - Control and Status Registers (CSR) Architecture for Microcomputer Buses	-	-
IEEE Std 1394	1995	IEEE Standard for a High Performance Serial Bus - Firewire	-	-
IEEE Std 1394A	2000	IEEE Standard for a High Performance Serial Bus - Amendment 1	-	-

INTERNATIONAL STANDARD

IEC 62286

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Service diagnostic interface for consumer electronics products and networks – Implementation for IEEE 1394

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SERVICE DIAGNOSTIC INTERFACE FOR CONSUMER ELECTRONICS PRODUCTS AND NETWORKS – Implementation for IEEE 1394

FOREWORD

1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The 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 the 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 National Committees.
3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
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5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62286 has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

This standard was developed by a project team of service and interface specialists within the European Association of Consumer Electronics Manufacturers (EACEM). EACEM subsequently merged with EICTA in September 2001. EICTA is the European Information, Communications and Consumer Electronics Technology Industry Association.

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

CDV	Report on voting
100/432/CDV	100/493A/RVC

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.

The committee has decided that the contents of this publication will remain unchanged until 2005. At this date, the publication will be

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

A bilingual version of this standard may be issued at a later date.

INTRODUCTION

Consumer products are often repaired by service workshops who are servicing all kinds of products developed by different manufacturers.

For high complexity products, the fault diagnosis becomes more and more difficult and time consuming. To make diagnosis possible, manufacturers often develop some built-in diagnostic software which can be used for fault finding together with an external diagnostic unit through a Service Diagnostic Interface (SDI).

To avoid the need for a service workshop to purchase several different diagnostic units from different manufacturers for different products, a standardized SDI is proposed for use by all manufacturers and in all products in which such diagnostic interfaces are required. The result will be that only one SDI is needed in the service workshops.

The SDI should also be suitable for diagnosis in a network (A/V or multimedia network) in which different products from different manufacturers are connected together. The interface should also allow for future development.

The standard SDI which has to be specified, should:

– be usable in future products;
– be easily connectable to a product or a network;
– be cheap;
– not limit product design.

SERVICE DIAGNOSTIC INTERFACE FOR CONSUMER ELECTRONICS PRODUCTS AND NETWORKS – Implementation for IEEE 1394

1 Scope

This International Standard specifies the requirements that have to be implemented in future products that incorporate a digital interface, and service diagnostic software developed for these products. The Service Diagnostic Interface (SDI) requires the use of a PC (desktop or laptop) into which service diagnostic software can be loaded. A part of this PC software has to be standardised while another part of this PC software is manufacturer/product related.

To reach a common approach in servicing all products from all manufacturers, it is necessary to standardise specific items in the products (Device Under Test/DUT) as well as in the diagnostic software on the PC.

The Service Diagnostic Interface (SDI) is based on the IEEE 1394:1995 specification because this interface will be used in most future products. The use of this connection and existing communication protocols enable implementation in products at low cost, and gives maximum flexibility and efficiency.

The SDI consists of:

- Specific hardware and software requirements of the DUT.
- Specific requirements of the PC:
  - the Service software,
  - an IEEE 1394 interface (to be built in if not already present).
- The connection between the PC and the DUT.

This specification is a minimal specification necessary to be able to carry out computerised diagnosis and covers the standardised software of the PC as well as the standardised software and provisions in the DUT.

If an IEEE 1394 interface is present on the product, then the requirement for product identification as described in this document (see 6.3) is mandatory. In addition, all communication for any service application should go through the IEEE 1394 interface only, as described in this document (in Clause 7).

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 61883-1:2003, *Consumer audio/video equipment – Digital Interface – Part 1: General*

IEEE 1212:2001, *Microprocessor Systems – Control and Status Registers (CSR): Architecture for microcomputer buses*

IEEE 1394:1995, *IEEE Standard for a High Performance Serial Bus – Firewire*

IEEE 1394a:2000, *IEEE Standard for a High Performance Serial Bus –* Amendment 1