

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Audio/video, information and communication technology equipment –
Environmentally conscious design**

**Équipements relatifs aux technologies de l'audio/vidéo, de l'information et de la
communication – Conception éco-environnementale**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**AUDIO/VIDEO, INFORMATION AND COMMUNICATION TECHNOLOGY
EQUIPMENT – ENVIRONMENTALLY CONSCIOUS DESIGN**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62075 has been prepared by IEC technical committee TC108: Safety of electronic equipment within the field of audio/video, information technology and communication technology.

This second edition cancels and replaces the first edition published in 2008. It is primarily an editorial revision that adds information related to the modifications noted in certain definitions and updating of regulation references.

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

CDV	Report on voting
108/448/CDV	108/466/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.

NOTE The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

The committee has decided that the contents of this publication 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 publication will be

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- withdrawn,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

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INTRODUCTION

Every **product** has an effect on the **environment**, which may occur at any or all stages of its **life cycle** – raw-material acquisition, manufacture, distribution, use, and disposal. These effects may range from low to significant; they may be short-term or long-term; and they may occur at the local, regional or global level (or a combination thereof).

The interest of customers, users, developers and other stakeholders in **environmental aspects** and effects of **products** is increasing.

Anticipating or identifying the **environmental aspects** of a **product** throughout its **life cycle** may be complex. The **environmental aspects** of a **product** have to be balanced against other factors, such as its intended use, performance, safety and health, cost, marketability, quality and regulatory requirements. It is important to consider the **product** functionality within the context of the system where it will be used.

The process of integrating **environmental aspects** into **product** design and development has to be continuous and flexible, promoting creativity and maximizing innovation and opportunities for environmental improvement. Environmental issues should be addressed in the policies and strategies of the **organization** involved.

Early identification and planning enable **organizations** to make effective decisions about **environmental aspects** that they control. This provides a better understanding of how their decisions will affect **environmental aspects** controlled by others, for example, at the raw-material and **parts** acquisition or **end of life** stages.

The purpose of this document is to help **designers** of **products** in the field of audio/video, information technology and communication technology to appropriately manage related environmental issues within the design process.

This sector specific document takes into account the publication of the second edition of ECMA-341 (2004), recent engineering best practices as well as current market and regulatory environmental **product** requirements.

AUDIO/VIDEO, INFORMATION AND COMMUNICATION TECHNOLOGY EQUIPMENT – ENVIRONMENTALLY CONSCIOUS DESIGN

1 Scope

This International Standard applies to all audio/video, information and communication technology equipment marketed as final **products**, hereafter referred to as **products**.

Although this standard does not explicitly apply to individual components and subassemblies to be incorporated into final **products**, component **manufacturers** also should consider this standard, to enable **manufacturers** using such components to meet the requirements herein.

Only the intended use of **products** as defined by the **manufacturer** is within the scope of this standard.

This standard specifies requirements and recommendations for the design of environmentally sound **products** regarding

- **life cycle** thinking aspects,
- material efficiency,
- **energy efficiency**,
- **consumables** and batteries,
- chemical and noise emissions,
- extension of **product** lifetime,
- **end of life**,
- **hazardous substances/preparations**, and
- **product** packaging.

This standard covers only criteria directly related to the environmental performance of the **product**. Criteria such as safety, ergonomics and electromagnetic compatibility (EMC) are outside the scope of this standard and covered by other standards.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3741, *Acoustics – Determination of sound power levels of noise sources using sound pressure – Precision methods for reverberation rooms*

ISO 3744, *Acoustics – Determination of sound power levels and sound energy levels of noise sources using sound pressure – Engineering methods for an essentially free field over a reflecting plane*

ISO 3745, *Acoustics – Determination of sound power levels of noise sources using sound pressure – Precision methods for anechoic and hemi-anechoic rooms*

ISO 7779, *Acoustics – Measurement of airborne noise emitted by information technology and telecommunications equipment*

ISO 9296, *Acoustics – Declared noise emission values of computer and business equipment*

ISO 11201, *Acoustics – Noise emitted by machinery and equipment – Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections*

ISO 11469, *Plastics – Generic identification and marking of plastics products*

3 Terms and definitions

For the purpose of this document the following terms and definitions apply.

3.1

chemical emissions

chemical **substances** and particulate matter emitted from a **product** into the air

3.2

consumable

user-replaceable **part** or piece of equipment that **manufacturers** place on the market for direct sale for use in equipment

Note 1 to entry: **Consumables** include, for example, printer cartridges and photographic film, and not **parts** required for repairs or **product** upgrades.

3.3

designer

person responsible for the design and development of a product under the supervision of the manufacturer

Note 1 to entry: See 3.12 for context with **manufacturer**.

3.4

end of life

life cycle stage of a **product** starting when it is removed from a **use stage**

3.5

energy efficiency

a comparative measure of energy required to achieve a particular performance

Note 1 to entry: A more precise definition is not applicable in this context as the output performance largely depends on the specific device.

EXAMPLE For power supplies the **energy efficiency** is defined as the percentage of output power per input power.

3.6

environment

surroundings in which an **organization** operates, including air, water, land, natural resources, flora, fauna, humans and their interrelation

[SOURCE: ISO 14001:2004, 3.5]

3.7

environmental aspect

element of an **organization's** activities, **products** or services that can interact with the **environment**