

# TECHNICAL SPECIFICATION

# IEC TS 62045-1

First edition  
2006-12

---

---

## Multimedia security – Guideline for privacy protection of equipment and systems in and out of use –

### Part 1: General

© IEC 2006 — Copyright - all rights reserved

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission, 3, rue de Varembe, PO Box 131, CH-1211 Geneva 20, Switzerland  
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: [inmail@iec.ch](mailto:inmail@iec.ch) Web: [www.iec.ch](http://www.iec.ch)



Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

PRICE CODE

**P**

*For price, see current catalogue*

## CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references .....	6
3 Terms and definitions .....	6
4 Privacy of user .....	7
4.1 Privacy protection.....	7
4.2 Definition of privacy.....	7
4.3 Characteristics of privacy .....	8
5 Methods for privacy protection.....	10
5.1 System model .....	10
5.2 Case of usage .....	12
5.3 Methods for data protection .....	12
6 Methods for user assistance .....	14
6.1 Importance of user assistance .....	14
6.2 Education for user .....	15
6.3 Instructions for user .....	15
6.4 Failsafe and multiple protection system .....	15
Figure 1 – System model .....	10
Table 1 – Privacy attribution .....	7
Table 2 – Origin of information.....	7
Table 3 – Information attribution .....	8
Table 4 – Rights holder.....	9
Table 5 – Protection execution.....	9
Table 6 – Access rights holder.....	10
Table 7 – Communication paths.....	11
Table 9 – Case of usage .....	12
Table 10 – Combination table .....	12
Table 11 – Operation modes.....	13

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MULTIMEDIA SECURITY –  
GUIDELINE FOR PRIVACY PROTECTION OF EQUIPMENT  
AND SYSTEMS IN AND OUT OF USE –****Part 1: General**

## 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.
- 2) The formal decisions or agreements of 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 IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

The main task of IEC technical committees is to prepare International Standards. In exceptional circumstances, a technical committee may propose the publication of a technical specification when

- the required support cannot be obtained for the publication of an International Standard, despite repeated efforts, or
- the subject is still under technical development, or where, for any other reason, there is the future but no immediate possibility of an agreement on an International Standard.

Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC 62045-1, which is a technical specification, has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

The text of this technical specification is based on the following documents:

Enquiry draft	Report on voting
100/1103/DTS	100/1162/RVC

Full information on the voting for the approval of this technical specification 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 list of all the parts of IEC 62045, under the general title *Multimedia security – Guideline for privacy protection of equipment and systems in and out of use*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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

## INTRODUCTION

There has been an increase in consumer products of multimedia that store the user's private data and privacy information. For instance, a digital TV tuner has a kind of IC card which stores the user's information and sometimes includes credit information. Also, from a wider viewpoint, digital cameras or digital video recorders store the private data of users, and digital audio players, cellular phones and PCs are banks of private data.

This private information should be protected from unauthorized or illegal access and use.

When the user discards such products, private data remains stored and this should be protected or deleted. In addition, when a user lends his product to others, private information should be protected. For instance, even if all the contents in the memory of digital video recorders or digital cameras are deleted, these data can be recovered easily with some software technology.

As consumer products of multimedia include storage and computer architecture, this problem will be raised in many aspects of usage. All products should have privacy protection methods.

This technical specification describes the system model and general methods for the user's privacy protection of data storage, equipment and systems, both in and out of use. Equipment and systems have their own structure in each application, therefore, the other part of this technical specification defines a dedicated method for privacy protection for the specific application. Also, the implementation of the privacy protection method depends on each design.

**MULTIMEDIA SECURITY –  
GUIDELINE FOR PRIVACY PROTECTION OF EQUIPMENT  
AND SYSTEMS IN AND OUT OF USE –**

**Part 1: General**

**1 Scope**

This part of IEC 62045 gives the guideline for methods for the protection of the user's privacy in consumer equipment and systems, both when the equipment or systems are in use and out of use.

**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 60958-3, *Digital audio interface – Part 3: Consumer applications*

IEC 61880-2, *Video systems (525/60) – Video and accompanied data using the vertical blanking interval – Analogue interface – Part 2: 525 progressive scan system*

IEC 61883-6, *Consumer audio/video equipment – Digital interface – Part 6: Audio and music data transmission protocol*