INTERNATIONAL **STANDARD**

IEC 61937-3

> First edition 2003-05

Digital audio -Interface for non-linear PCM encoded audio bitstreams applying IEC 60958 -

Part 3:

Non-linear PCM bitstreams according to the AC-3 format



Publication numbering

As from 1 January 1997 all IEC publications are issued with a designation in the 60000 series. For example, IEC 34-1 is now referred to as IEC 60034-1.

Consolidated editions

The IEC is now publishing consolidated versions of its publications. For example, edition numbers 1.0, 1.1 and 1.2 refer, respectively, to the base publication, the base publication incorporating amendment 1 and the base publication incorporating amendments 1 and 2.

Further information on IEC publications

The technical content of IEC publications is kept under constant review by the IEC, thus ensuring that the content reflects current technology. Information relating to this publication, including its validity, is available in the IEC catalogue of publications (see below) in addition to new editions, amendments and corrigenda. Information on the subjects under consideration and work in progress undertaken by the technical committee which has prepared this publication, as well as the list of publications issued, is also available from the following:

- IEC Web Site (<u>www.iec.ch</u>)
- Catalogue of IEC publications

The on-line catalogue on the IEC web site (http://www.iec.ch/searchpub/cur fut.htm) enables you to search by a variety of criteria including text searches, technical committees and date of publication. On-line information is also available on recently issued publications, withdrawn and replaced publications, as well as corrigenda.

IEC Just Published

This summary of recently issued publications (http://www.iec.ch/online_news/justpub/ip_entry.htm) is also available by email. Please contact the Customer Service Centre (see below) for further information.

Customer Service Centre

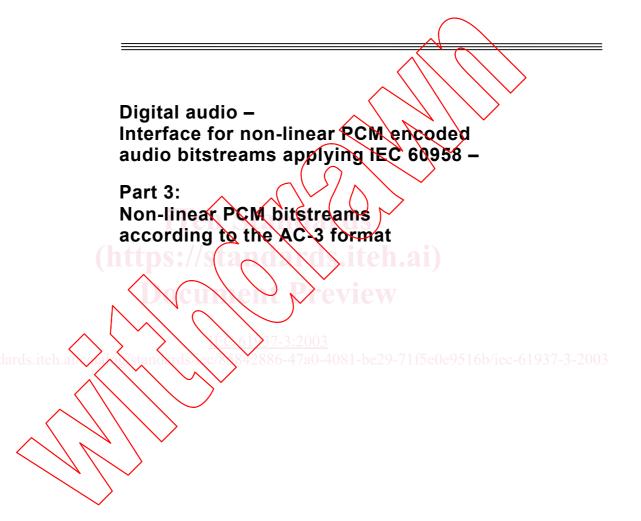
of you have any questions regarding this publication or need further assistance, please contact the Customer Service Centre:

Email: <u>sustserv@lec.ch</u> Tel: +41 22 919 02 11 Eax: +41 22 919 03 00

INTERNATIONAL STANDARD

IEC 61937-3

First edition 2003-05



© IEC 2003 — 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 Varembé, 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 Web: www.iec.ch



PRICE CODE

CONTENTS

FO	REW	ORD	. 3
1	Scop	pe	. 5
2	Normative references		
3	Term	ns and definitions	. 5
	3.1	Definitions	. 5
	3.2	Abbreviations	. 5
	3.3	Presentation convention	. 6
4	Mapping of the audio bitstream on to IEC 61937		
	4.1	AC-3 burst-info	. 6
5	Form	nat of AC-3 data-burst	. 6
	5.1	General	. 6
	5.2	Pause data-burst	. 6
	5.3	Audio data-bursts	. 6
		5.3.1 The data AC-3	. 6
		5.3.2 Latency of AC-3 decorning	. 7
Bib	liogra	iphy	. 9
		(https://stagalXaliten.al)	
Fig	ure 1	- AC-3 data-burst, with reference point R	. 7
Fig	ure 2	- Latency of AC-3 decoding	. 8
		- Fields of burst-info	
Tal	ble 2 -	- Repetition period of pause data bursts	. 6
		- Data-type-dependent when data-type = 1	

INTERNATIONAL ELECTROTECHNICAL COMMISSION

DIGITAL AUDIO – INTERFACE FOR NON-LINEAR PCM ENCODED AUDIO BITSTREAMS APPLYING IEC 60958 –

Part 3: Non-linear PCM bitstreams according to the AC-3 format

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.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 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 2003 of patent rights. The LEC shall not be held responsible for identifying any or all such patent rights.

International Standard LEC 61937-3 has been prepared by technical area 4: Digital system interfaces, of LEC technical committee 100: Audio, video and multimedia systems and equipment.

This standard cancels and replaces IEC 61937, published in 2000, which has been divided into four parts (see below). This first edition constitutes a technical revision.

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

FDIS	Report on voting
100/646/FDIS	100/672/RVD

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.

IEC 61937 consists of the following parts under the general title *Digital audio – Interface for non-linear PCM encoded audio bistreams applying IEC 60958*:

Part 1: General

Part 2: Burst-info

Part 3: Non-linear PCM bitstreams according to the AC-3 format

Part 4: Non-linear PCM bitstreams according to the MPEG audio formats

Part 5: Non-linear PCM bitstreams according to the DTS (Digital Theatre Systems) format(s)

Part 6: Non-linear PCM bitstreams according to the MPEG-2 AAC format

Part 7: Non-linear PCM bitstreams according to the ATRAC and ATRAC2/3 formats

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

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

The contents of the corrigendum of March 2004 have been included in this copy.