

INTERNATIONAL STANDARD

IEC
61883-7

First edition
2003-01

Consumer audio/video equipment – Digital interface –

Part 7: Transmission of ITU-R BO.1294 System B

*Matériel audio/vidéo grand public –
Interface numérique –*

*Partie 7:
Transmission du Système B de l'UIT-R BO.1294*

© 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



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE

N

For price, see current catalogue

CONTENTS

FOREWORD	3
1 Scope	5
2 Normative references.....	5
3 Terms, definitions and abbreviations.....	5
3.1 Terms and definitions	5
3.2 Abbreviations.....	6
4 DSS transport stream	6
5 Construction of an IEEE 1394 packet.....	8
5.1 Source packets.....	8
5.2 Isochronous packets.....	10
6 Transmission of isochronous packets.....	11
6.1 Late packets	11
Annex A (normative) Buffer size for DSS transmission	12
Figure 1 – Steps in the transmission of transport stream	7
Figure 2 – DSS stream processing block diagram	7
Figure 3 – Structure of a source packet.....	8
Figure 4 – DSS packet header structure.....	8
Figure 5 – Structure of the source packet header	9
Figure 6 – FDF structure	11
Table 1 – Fields in the DSS packet header.....	9
Table 2 – Fields in the CIP header	10
Table A.1 – Buffer for jitter example	13
Table A.2 – Buffer for MPEG smoothing example	13

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**CONSUMER AUDIO/VIDEO EQUIPMENT –
DIGITAL INTERFACE –**
Part 7: Transmission of ITU-R BO.1294 System B

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 of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

IEC 61883-7 has been prepared by technical area 4, Digital system interfaces, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

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

FDIS	Report on voting
100/558/FDIS	100/610/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.

International Standard IEC 61883 consists of the following parts under the general title *Consumer audio/video equipment – Digital interface*:

Part 1: General

Part 2: SD-DVCR data transmission

Part 3: HD-DVCR data transmission

Part 4: MPEG2-TS data transmission

Part 5: SDL-DVCR data transmission

Part 6: Audio and music data transmission protocol

Part 7: Transmission of ITU-R BO.1294 System B

The committee has decided that the contents of this publication will remain unchanged until 2004. At this date, the publication will be

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

CONSUMER AUDIO/VIDEO EQUIPMENT – DIGITAL INTERFACE –

Part 7: Transmission of ITU-R BO.1294 System B

1 Scope

This specification defines packetization and transmission for transport streams of ITU-R BO.1294 system B (DirecTV system/DSS) over the IEEE 1394 Serial Bus.

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, *Consumer audio/video equipment – Digital interface – Part 1: General*

ITU-R BO.1294:1997, *Common functional requirements for the reception of digital multi-programme television emissions by satellites operating in the 11/12 GHz frequency range*¹

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

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

¹ In this document, the name “DSS” is used instead of ITU-R BO.1294 system B.