



SLOVENSKI STANDARD
SIST EN 61041-2:1999

01-april-1999

Non-broadcast video tape recorders - Methods of measurement -- Part 2: Video characteristics chrominance SECAM (IEC 61041-2:1994)

Non-broadcast video tape recorders - Methods of measurement -- Part 2: Video characteristics chrominance SECAM

Videobandgeräte für den Gebrauch außerhalb des Rundfunks - Meßverfahren -- Teil 2: Videoeigenschaften Chrominanz SECAM

Magnétoscopes hors radiodiffusion - Méthodes de mesure -- Partie 2: Caractéristiques vidéo chrominance SECAM

ITIH STANDARD PREVIEW
(standards.iteh.ai)
<https://standards.iteh.ai/catalog/standards/sist/c54ddff0-782b-4cbb-87c1-01f4d22897d9/sist-en-61041-2-1999>

Ta slovenski standard je istoveten z: EN 61041-2:1996

ICS:

33.160.40 Video sistemi Video systems

SIST EN 61041-2:1999 **en**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61041-2:1999

<https://standards.iteh.ai/catalog/standards/sist/c54ddff0-782b-4cbb-87c1-01f4d22897d9/sist-en-61041-2-1999>

EUROPEAN STANDARD

EN 61041-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 1996

ICS 33.160.40

Descriptors: Recording apparatus, video recording, magnetoscopes, frequency modulation, measurements, characteristics, chrominance, cross talk, luminance

English version

Non-broadcast video tape recorders
Methods of measurement
Part 2: Video characteristics chrominance SECAM
(IEC 1041-2:1994)

Magnétoscopes hors radiodiffusion
Méthodes de mesure
Partie 2: Caractéristiques vidéo
chrominance SECAM
(CEI 1041-2:1994)

Videobandgeräte für den Gebrauch
außerhalb des Rundfunks
Meßverfahren
Teil 2: Videoeigenschaften
Chrominanz SECAM
(IEC 1041-2:1994)

This European Standard was approved by CENELEC on 1995-11-28. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of the International Standard IEC 1041-2:1994, prepared by SC 100B, Recording, of IEC TC 100, Audio, video and multimedia systems and equipment, was submitted to the formal vote and was approved by CENELEC as EN 61041-2 on 1995-11-28 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) 1996-12-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1996-12-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annex ZA is normative and annex A is informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 1041-2:1994 was approved by CENELEC as a European Standard without any modification.

https://standards.iteh.ai/catalog/standards/sist/en-61041-2-1999
01f4d22897d9/sist/en-61041-2-1999

ITeH STANDARD PREVIEW
(sanearis.iteh.ai)

Annex ZA (normative)

**Normative references to international publications
with their corresponding European publications**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 1041-1	1990	Non-broadcast video tape recorders Methods of measurement Part 1: General video (NTSC/PAL) and audio (longitudinal) characteristics	EN 61041-1	1995
CCIR Recommendation 471-1	-	Nomenclature and description of colour bar signals	-	-

STANDARD PREVIEW
 (standards.tch.ai)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61041-2:1999

<https://standards.iteh.ai/catalog/standards/sist/c54ddff0-782b-4cbb-87c1-01f4d22897d9/sist-en-61041-2-1999>

NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC

61041-2

Première édition
First edition
1994-04

**Magnétoscopes hors radiodiffusion –
Méthodes de mesure**

**Partie 2:
Caractéristiques vidéo chrominance SECAM**

iTeh STANDARD PREVIEW

(standards.iteh.ai)
**Non-broadcast video tape recorders –
Methods of measurement**

[https://standards.iteh.ai/catalog/standards/sist/c54ddff0-782b-4cbb-87c1-](https://standards.iteh.ai/catalog/standards/sist/c54ddff0-782b-4cbb-87c1-f4d22897d9/sist-en-61041-2-1999)

**Part 2:
Video characteristics chrominance SECAM**

© IEC 1994 Droits de reproduction réservés — Copyright - all rights reserved

Aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'éditeur.

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
Telefax: +41 22 919 0300

3, rue de Varembe Geneva, Switzerland
e-mail: inmail@iec.ch IEC web site <http://www.iec.ch>



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

N

Pour prix, voir catalogue en vigueur
For price, see current catalogue

CONTENTS

	Page
FOREWORD	5
Clause	
1 Scope	7
2 Normative references	7
3 General	7
4 Chrominance amplitude frequency response	7
5 Chrominance signal-to-noise ratio	9
6 Luminance-to-chrominance crosstalk	11
7 Chrominance-to-luminance crosstalk	13
8 Chrominance-to-luminance displacement	15
Figures – Circuit arrangements	
Figure 1 – Chrominance amplitude frequency response	17
Figure 2 – Chrominance signal-to-noise ratio	19
Figure 3 – Luminance-to-chrominance crosstalk	21
Figure 4 – Chrominance-to-luminance crosstalk	23
Figure 5 – Chrominance-to-luminance displacement	25
Annex A	27

iTech STANDARD PREVIEW
(standards.itech.ai)

SIST EN 61041-2:1999
<https://standards.itech.ai/catalog/standards/sist/c54dd110-782b-4c6b-87c1-0181d2289749/sist-en-61041-2-1999>

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**NON-BROADCAST VIDEO TAPE RECORDERS –
METHODS OF MEASUREMENT –**

Part 2: Video characteristics chrominance SECAM

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 cooperation 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, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 3) They have the form of recommendations for international use published in the form of standards, 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.

<https://standards.iteh.ai/catalog/standards/sist/c54ddff0-782b-4cbb-87c1-4112df289749/iec-1041-2-1994>

International Standard IEC 1041-2 has been prepared by sub-committee 60B: Video recording, of IEC technical committee 60: Recording.

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

DIS	Report on voting	Amendment to DIS	Report on voting
60B(CO)127	60B(CO)140 + 140A	60B(CO)154	60B(CO)165

Full information on the voting for the approval of this standard can be found in the reports on voting indicated in the above table.

IEC 1041 consists of the following parts, under the general title: *Non-broadcast video tape recorders – Methods of measurement:*

Part 1: 1990, General video (NTSC/PAL) and audio (longitudinal) characteristics

Part 2: 1994, Video characteristics chrominance SECAM

Annex A is for information only.

NON-BROADCAST VIDEO TAPE RECORDERS – METHODS OF MEASUREMENT –

Part 2: Video characteristics chrominance SECAM

1 Scope

This part of IEC 1041 describes the measurement methods to evaluate the chrominance performance in SECAM non-broadcast video tape recorders.

Because of the frequency modulation used in the SECAM system, special methods of measurement are required for testing the chrominance performance.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 1041. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 1041 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ITEH STANDARD PREVIEW
(standards.iteh.ai)

IEC 1041-1: 1990, *Non-broadcast video tape recorders – Methods of measurement – Part 1: General video (NTSC/PAL) and audio (longitudinal) characteristics*

<https://standards.iteh.ai/catalog/standards/sist/c54ddff0-782b-4cbb-87c1->

CCIR Recommendation 471-1: *Nomenclature and description of colour bar signals*

3 General

The general requirements given in section 1, and the methods of measurement described in sections 2, 4 and 5 of IEC 1041-1 are applicable.

4 Chrominance amplitude frequency response

4.1 This measurement determines the amplitude frequency response of the chrominance channel.

4.2 The circuit arrangement shall be as shown in figure 1.

4.3 The test signal shall be as shown in figure 1.

The sinusoidal sweep signal (0,1 MHz to 1 MHz) is present during the active part of the field and has a peak-to-peak amplitude of 300 mV superimposed on a 50 % pedestal. This signal has no sync pulse.

4.4 Put the switch SW1 in position 1 in order to check the demodulator amplitude frequency response of the chrominance channel.

The amplitude V_{p-p} of the output signal at each frequency (100 kHz – 250 kHz – 500 kHz) shall be measured on the (R-Y) signal and the (B-Y) signal. The peak-to-peak amplitude at each of the above-mentioned frequencies shall be related to the reference level V_{ref} at 100 kHz.

The amplitude frequency response is given by the following formula:

$$A \text{ (dB)} = 20 \lg \frac{V_{p-p}}{V_{ref}}$$

4.5 Put the switch SW1 in position 2 in order to check the amplitude frequency response of the chrominance channel of the VTR.

The amplitude at each marker on the (R-Y) signal and the (B-Y) signal shall be measured as mentioned in 4.4.

4.6 The amplitude/frequency response of (R-Y) and (B-Y) channels of the VTR shall be reported taking into account the demodulator response obtained in 4.4 if this one is not flat from zero to 500 kHz.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

5 Chrominance signal-to-noise ratio

5.1 This measurement determines the noise behaviour of the chrominance channel.

5.2 The circuit arrangement shall be as shown in figure 2.

5.3 The test signal shall be a full-field blue or red SECAM signal corresponding to the blue or red part of the 100/0/75/0 colour bars defined in CCIR Recommendation 471-1.

5.4 The measurement of the chrominance signal-to-noise ratio is made as explained below.

5.4.1 Put the SW2 switch in position 1 in order to measure the demodulator noise level on (R-Y) and (B-Y) signals, SW1 being in position 1 and 2 respectively.

The noise level (r.m.s.) will be taken as NR0 for (R-Y) and NB0 for (B-Y).

5.4.2 Put the SW2 switch in position 2 and record the red signal on one tape section and then the blue signal on another one.

5.4.3 During playback of both sections, make the following measurements on (R-Y) and (B-Y) signals:

The noise level (r.m.s.) taken as NR1 and NB1 respectively.

The peak-to-peak signal level taken as VR1 and VB1 respectively.