

SLOVENSKI STANDARD
SIST EN 60107-5:1999**01-julij-1999**

Recommended methods of measurement on receivers for television broadcast transmissions - Part 5: Electrical measurements on multichannel sound television receivers using the NICAM two-channel digital sound-system (IEC 60107-5:1992)

Recommended methods of measurement on receivers for television broadcast transmissions -- Part 5: Electrical measurements on multichannel sound television receivers using the NICAM two-channel digital sound-system

Empfohlene Meßverfahren an Empfängern für Fernseh-Rundfunksendungen -- Teil 5: Elektrische Meßverfahren an Fernseh-Rundfunkempfängern für Mehrkanalton nach dem NICAM Zweikanal-Digitaltonverfahren

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Méthodes recommandées pour les mesures sur les récepteurs de télévision -- Partie 5: Mesures électriques sur les récepteurs de télévision à plusieurs voies son utilisant le système à deux voies son numérique NICAM

Ta slovenski standard je istoveten z: EN 60107-5:1992

ICS:

33.160.25 Televizijski sprejemniki Television receivers

SIST EN 60107-5:1999**en**

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EUROPEAN STANDARD

EN 60107-5

NORME EUROPEENNE

EUROPÄISCHE NORM

October 1992

UDC 621.397.13:621.317

Descriptors: Radiocommunications, television broadcasting, television systems, television receivers, measurement, electric measurements

ENGLISH VERSION

Recommended methods of measurement on receivers
for television broadcast transmissions
Part 5: Electrical measurements on multichannel
sound television receivers using the NICAM
two-channel digital sound-system
(IEC 107-5:1992)

Méthodes recommandées pour les
mesures sur les récepteurs de
télévision

Partie 5: Mesures électriques
sur les récepteurs de télévision
à plusieurs voies son utilisant

le système à deux voies son
numérique NICAM

(CEI 107-5:1992)

Empfohlene Meßverfahren
an Empfängern für
Fernsehrundfunksendungen.

Teil 5: Elektrische
Meßverfahren an

Fernseh-Rundfunkempfängern
für Mehrkanalton nach dem

NICAM
Zweikanal-Digitaltonverfahren
(IEC 107-5:1992)

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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 document 12A(C.O.)150, as prepared by Sub-Committee 12A: Receiving equipment, of IEC Technical Committee No. 12: Radiocommunications was submitted to the IEC-CENELEC parallel vote in May 1991.

The reference document was approved by CENELEC as EN 60107-5 on 10 December 1991.

The following dates were fixed:

- latest date of publication of
an identical national standard (dop) 1993-08-15
- latest date of withdrawal of
conflicting national standards (dow) 1993-08-15

Annexes designated "normative" are part of the body of the standard. In this standard, annex ZA is normative.

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ANNEX ZA (normative)

OTHER INTERNATIONAL PUBLICATIONS QUOTED IN THIS STANDARD
WITH THE REFERENCES OF THE RELEVANT EUROPEAN PUBLICATIONS

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

IEC Publication	Date	Title	EN/HD	Date
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107-1	1977	Recommended methods of measurement on receivers for television broadcast transmissions - Part 1: General considerations - Electrical measurements other than those at audio-frequencies	-	-
107-2	1980	Part 2: Electrical and acoustic measurements at audio-frequencies	-	-
268-1	1988	Sound system equipment Part 1: General	HD 483.1 S2	1989

Other Publications quoted:

CCIR Report 624-3:1986	Characteristics of television systems - XVth plenary assembly, Dubrovnik, 1986, Volume XI, part 1
CCIR Recommendation 707:	Transmission of multisound in terrestrial PAL television systems B, G, H and I - Recommendations of the CCIR, 1990, Volume X, part 1: Broadcasting service (sound)
CCITT Recommendation J17:1984:	Pre-emphasis used, on sound-programme circuits Red book, volume III, fascicule III.4

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC
107-5**

Première édition
First edition
1992-08

**Méthodes recommandées pour les mesures
sur les récepteurs de télévision**

Partie 5:

**Mesures électriques sur les récepteurs de télévision
à plusieurs voies son utilisant
le système à deux voies son numérique NICAM**

SIST EN 60107-5:1999

**Recommended methods of measurement
on receivers for television broadcast
transmissions**

Part 5:

**Electrical measurements on multichannel
sound television receivers using
the NICAM two-channel digital sound-system**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**RECOMMENDED METHODS OF MEASUREMENTS
ON RECEIVERS FOR TELEVISION BROADCASTING
TRANSMISSIONS**
**Part 5: Electrical measurements on multichannel sound
television receivers using the NICAM
two-channel digital sound-system**

FOREWORD

- 1) 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.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

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This part of International Standard IEC 107 has been prepared by Sub-Committee 12A: Receiving equipment, of IEC Technical Committee No. 12: Radiocommunications.

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

DIS	Report on Voting
12A(CO)150	12A(CO)165

Full information on the voting for the approval of this part can be found in the Voting Report indicated in the above table.

RECOMMENDED METHODS OF MEASUREMENTS ON RECEIVERS FOR TELEVISION BROADCASTING TRANSMISSIONS

Part 5: Electrical measurements on multichannel sound television receivers using the NICAM two-channel digital sound-system

1 Introduction

1.1 Scope

The methods of measurement described in this part of IEC 107 apply to television receivers designed for the reception of television broadcasts using the two-channel digital sound system. The sound coding-system is based on NICAM 728 and is transmitted by a quadrature phase-shift keying (QPSK) modulated digital subcarrier.

NOTE - NICAM 728 is the abbreviated form of Near Instantaneous Companded Audio Multiplex at 728 kbit/s.

1.2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 107. 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 107 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.

IEC 107-1: 1977, *Recommended methods of measurement on receivers for television broadcast transmissions – Part 1: General considerations. Electrical measurements other than those at audio-frequencies.*

IEC 107-2: 1980, *Recommended methods of measurements on receivers for television broadcast transmissions – Part 2: Electrical and acoustic measurements at audio-frequencies.*

IEC 268-1: 1985, *Sound system equipment – Part 1: General.*

CCIR Report 624-3: 1986, *Characteristics of television systems – XVIth plenary assembly, Dubrovnik, 1986, Volume XI, part 1.*

CCIR Recommendation 707: *Transmission of multisound in terrestrial PAL television systems B, G, H and I – Recommendations of the CCIR, 1990, Volume X, part 1: Broadcasting service (sound).*

CCITT Recommendation J17: 1984, *Pre-emphasis used on sound-programme circuits – Red book, volume III, fascicule III.4.*

2 General explanation of terms

The digital sound system offers the possibility of audio transmission using several different modes of operation:

Dual sound: transmission of two independent sound signals.

Stereophonic: transmission of a left and right channel sound signal.

Monoaural: transmission of monoaural signal.

3 General notes on measurements

The decoder for this sound system is generally integrated into a television receiver and it is not always possible to measure the data before the D/A converter.

3.1 General conditions

Unless otherwise stated, measurements shall be carried out under the conditions described in IEC 107-1 and IEC 107-2.

3.2 Setting of the receiver

3.2.1 Introduction

Measurements should be carried out in accordance with the following conditions to ensure measurement reliability.

3.2.2 Reference output power

Reference output power shall be 50 mW at the audio frequency substitute load. For all other outputs the corresponding signal voltage measured at specified terminating impedance shall be taken as reference output.

3.2.3 Setting of tone controls

Unless otherwise stated, the tone controls that have an influence on the frequency characteristics shall be adjusted for a practically flat response characteristic at the volume control position specified for the measurement. If the volume control is physiologically weighted (loudness control) and the compensation cannot be switched off, it shall be set for minimum compensation effect and the reference output power obtained by adjusting the audio input level and this value stated with the results.

3.2.4 Setting of stereo balance control

Unless otherwise specified, the balance control(s) shall be adjusted so that the output powers of the two channels are of the same value at the volume control position specified for measurement.