



SLOVENSKI STANDARD
SIST EN 60244-13:1999
01-januar-1999

Methods of measurement for radio transmitters - Part 13: Performance characteristics for FM sound broadcasting (IEC 60244-13:1991)

Methods of measurement for radio transmitters -- Part 13: Performance characteristics for FM sound broadcasting

Meßverfahren für Funkseender -- Teil 13: Übertragungseigenschaften für FM-Tonrundfunk

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Méthodes de mesure applicables aux émetteurs radioélectriques -- Partie 13: Qualités de fonctionnement des émetteurs de radiodiffusion sonore à modulation de fréquence

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Ta slovenski standard je istoveten z: EN 60244-13:1993

ICS:

33.060.20	Sprejemna in oddajna oprema	Receiving and transmitting equipment
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EUROPEAN STANDARD

EN 60244-13

NORME EUROPEENNE

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April 1993

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ENGLISH VERSION

Methods of measurement for radio transmitters
Part 13: Performance characteristics for FM sound
broadcasting
(IEC 244-13:1991)

Méthodes de mesure applicables
aux émetteurs radioélectriques
Partie 13: Qualités de
fonctionnement des émetteurs de
radiodiffusion sonore à
modulation de fréquence
(CEI 244-13:1991)

Meßverfahren für
Funksender
Teil 13:
Übertragungseigenschaften
für FM-Tonrundfunk
(IEC 244-13:1991)

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This European Standard was approved by CENELEC on 1993-03-09. CENELEC members are bound to comply with the 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 CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 244-13:1991 could be accepted without textual changes, has shown that no common modifications were necessary for the acceptance as European Standard.

The reference document was submitted to the CENELEC members for formal vote and was approved by CENELEC as EN 60244-13 on 9 March 1993.

The following dates were fixed:

- latest date of publication of
an identical national standard (dop) 1994-03-01
- latest date of withdrawal of
conflicting national standards (dow) 1994-03-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annexes A, B and ZA are normative.

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ENDORSEMENT NOTICE

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The text of the International Standard IEC 244-13:1991 was approved by CENELEC as a European Standard without any modification.

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
215	1987	Safety requirements for radio	EN 60215	1989
A1	1990	transmitting equipment	EN 60215/A1	1992
244-1	1968	Methods of measurement for radio transmitters - Part 1: General conditions of measurement, frequency, output power and power consumption	HD 236.1 S1*	1977
A2	1989		-	-
244-12-1	1989	Part 12: Guideline for drawing up descriptive leaflets for transmitters and transposers for sound and television broadcasting Characteristics to be specified	EN 60244-12-1	1993
244-12-2	1989	Specification sheets	EN 60244-12-2	1993
864-1	1986	Standardization of interconnections between broadcasting transmitters or transmitter systems and supervisory equipment - Part 1: Interface standards for systems using dedicated interconnections	HD 577 S1*	1990

CCIR publications:

-
- Recommendation 450 - Transmission standards for FM sound broadcasting at VHF
- Recommendation 468-4: 1990 - Measurement of audio-frequency noise voltage level in sound broadcasting
- Recommendation 559 - Objective measurement of radio-frequency protection ratios in LF, MF and HF broadcasting
- Recommendation 643 - System for automatic tuning and other applications in FM radio receivers for use with the pilot-tone system
- Report 463 - Transmission of several sound programmes or other signals with a single transmitter in frequency-modulation sound broadcasting

* HD 236.1 S1 is based on IEC 244-1:1968 + A1:1973 + IEC 244-1A:1968 + A1:1973
HD 577 S1 is based on IEC 864-1:1986 + A1:1987

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NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC
244-13

Première édition
First edition
1991-04

**Méthodes de mesure applicables aux émetteurs
radioélectriques**

Partie 13:

Qualités de fonctionnement des émetteurs de
radiodiffusion sonore à modulation de fréquence

**Methods of measurement for radio
transmitters**

Part 13:

Performance characteristics for
FM sound broadcasting

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

METHODS OF MEASUREMENT FOR RADIO TRANSMITTERS

Part 13: Performance characteristics for
FM sound broadcasting

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 International Standard has been prepared by Sub-Committee 12C: Transmitting equipment, of IEC Technical Committee No. 12: Radiocommunications.

[SIST EN 60244-13:1999](https://standards.iteh.ai/catalog/standards/sist/48e60c73-4301-49df-bde9-9852b3d4c3fb/sist-en-60244-13-1999)

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

Six Months' Rule	Report on Voting
12C(CO) 215	12C(CO) 221

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

This new part therefore incorporates all the recommended measurements for FM sound broadcasting transmitters in a single publication and supersedes all clauses dealing with FM broadcasting transmitters in the following existing publications:

IEC 244-2, 1969
 IEC 244-2A, 1969
 IEC 244-2B, 1969
 IEC 244-3, 1972
 IEC 244-3A, 1971
 IEC 244-3B, 1972
 IEC 244-4, 1973

Annexes A and B form an integral part of this part of IEC 244.

INTRODUCTION

This International Standard is one of a series of parts of IEC 244.

A number of existing parts of IEC 244 are currently under review and several of these will be revised or withdrawn. When this process is complete, this series of publications will comprise one part dealing with general characteristics, with cross-references to relevant CCIR publications* and the Radio Regulations, and a number of specialized parts, each dealing with particular types of transmitter.

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<https://standards.iteh.ai/catalog/standards/sist/48e60c73-4301-49df-bde9-9852b3dde3fb/sist-en-60244-13-1999>

* In most cases references to CCIR publications deliberately omit the revision number: it is assumed that reference will always be made to the later revision of CCIR publications. An exception is made here for Recommendation 468-4, whose text is reproduced in full in this publication.

METHODS OF MEASUREMENT FOR RADIO TRANSMITTERS

Part 13: Performance characteristics for FM sound broadcasting

1 Scope

This International Standard contains the method of measurement to assess the performance characteristics of frequency modulated transmitters for sound broadcasting. To assess all other characteristics, this standard needs to be used in conjunction with the publications quoted in clause 2.

This standard is intended to be used for type tests and acceptance or factory tests.

It is not mandatory to measure all the described characteristics. Additional measurements may be carried out as an agreement between customer and manufacturer.

The performance characteristics measured in accordance with this standard makes possible the comparison of the results of measurements made by different observers.

Limiting values for acceptable performance are not covered by this standard but, in connection with the presentation of measured characteristics, some data are given for clarity.

2 Normative references

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

2.1 IEC publications

215: 1987, *Safety requirements for radio transmitting equipment*.

Amendment No. 1 (1990).

244-1: 1968, *Methods of measurement for radio transmitters - Part 1: General conditions of measurement, frequency, output power and power consumption (under revision)*.

Amendment No. 2 (1989) to IEC 244-1A (1968), *Methods of measurement for radio transmitters - Part 1: General conditions of measurement, frequency, output power and power consumption - First supplement: Appendices*.

244-12-1: 1989, *Methods of measurement for radio transmitters - Part 12: Guideline for drawing up descriptive leaflets for transmitters and transposers for sound and television broadcasting - Characteristics to be specified.*

244-12-2: 1989, *Methods of measurement for radio transmitters - Part 12: Guideline for drawing up descriptive leaflets for transmitters and transposers for sound and television broadcasting - Specification sheets.*

864-1: 1986, *Standardization of interconnections between broadcasting transmitters or transmitter systems and supervisory equipment - Part 1: Interface standards for systems using dedicated interconnections.*

2.2 CCIR publications

Recommendation 450, *Transmission standards for FM sound broadcasting at VHF.*

Recommendation 468-4: 1990, *Measurement of audio-frequency noise voltage level in sound broadcasting.*

Recommendation 559, *Objective measurement of radio-frequency protection ratios in LF, MF and HF broadcasting.*

Recommendation 643, *System for automatic tuning and other applications in FM radio receivers for use with the pilot-tone system.*

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Report 463, *Transmission of several sound programmes or other signals with a single transmitter in frequency-modulation sound broadcasting.*

3 General terms and definitions

3.1 Frequency modulated sound transmitter

The term "frequency modulated sound transmitter" is used in this standard to denote equipment with a FM radio-frequency output and a baseband frequency input which can accept monophonic, stereophonic and supplementary service multiplexed signals.

3.2 Description of the transmission systems for FM sound broadcasting

The transmission systems for FM sound broadcasting are laid down in CCIR Recommendation 450.

Supplementary services are described in CCIR Report 463 and CCIR Recommendation 643.