SLOVENSKI STANDARD
SIST EN 60835-3-7:2002

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Methods of measurement for equipment used in digital microwave radio transmission systems - Part 3: Measurements on satellite earth stations - Section 7: Figure-of-merit of receiving system (IEC 60835-3-7:1995)

Methods of measurement for equipment used in digital microwave radio transmission systems -- Part 3: Measurements on satellite earth stations -- Section 7: Figure-of-merit of receiving system

Meßverfahren für Geräte in digitalen Mikrowellen-Funkübertragungssystemen -- Teil 3: Messungen an Satelliten-Erdfunkstellen -- Hauptabschnitt 7: Gütezahl des Empfangssystems

Méthodes de mesure applicables au matériel utilisé pour les systèmes de transmission numérique en hyperfréquence -- Partie 3: Mesures applicables aux stations terriennes de télécommunications par satellite -- Section 7: Facteur de qualité du système de réception

Ta slovenski standard je istoveten z: EN 60835-3-7:1995

ICS:

33.060.30	Radiorelejni in fiksni satelitski komunikacijski sistemi	Radio relay and fixed satellite communications systems

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English version

Methods of measurement for equipment used in digital microwave radio transmission systems
Part 3: Measurements on satellite earth stations
Section 7: Figure-of-merit of receiving system
(IEC 835-3-7:1995)

Méthodes de mesure applicables au matériel utilisé pour les systèmes de transmission numérique en hyperfréquence
Partie 3: Mesures applicables aux stations terriennes de télécommunications par satellite
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(CEI 835-3-7:1995)

Meßverfahren für Geräte in digitalen Mikrowellen-Funkübertragungssystemen
Teil 3: Messungen an Satelliten-Erdfunkstellen
Hauptabschnitt 7: Gütezahl des Empfangssystems
(IEC 835-3-7:1995)

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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 12E(CO)169, future edition 1 of IEC 835-3-7, prepared by SC 12E, Radio relay and fixed satellite communication systems, of IEC TC 12, Radiocommunications, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60835-3-7 on 1995-05-15.

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) 1996-02-15
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1996-02-15

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 annexes A and B are informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 835-3-7:1995 was approved by CENELEC as a European Standard without any modification.

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.

Publication	Year	Title	EN/HD	Year
IEC 835-1-2	1992	Methods of measurement for equipment used in digital microwave radio transmission systems Part 1: Measurements common to terrestrial radio-relay systems and satellite earth stations - Section 2: Basic characteristics	EN 60835-1-2	1993
IEC 835-3-2	199x	Part 3: Measurements on satellite earth stations - Section 2: Antenna (under consideration)	-	-
ITU-R Recommendation 574-3	1990	Use of the decibel and the neper in telecommunications	-	-

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Partie 3:
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Section 7: Facteur de qualité du système de réception

Methods of measurement for equipment used in digital microwave radio transmission systems

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

METHODS OF MEASUREMENT FOR EQUIPMENT USED IN DIGITAL MICROWAVE RADIO TRANSMISSION SYSTEMS –

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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.

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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.

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International Standard IEC 835-3-7 has been prepared by sub-committee 12E: Radio relay and satellite communication systems, of IEC technical committee 12: Radiocommunications.

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

DIS	Report on voting
12E(CO)169	12E/253/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.

INTRODUCTION

The quantity G/T represents the figure-of-merit of an earth station for satellite communication applications.

Two measurement principles may be used in the measurement of the G/T of an earth station, using both direct and indirect measurement methods.

The direct method measures the combined characteristics of the antenna and the receiver and can be carried out using a radio star or other remote transmitter as a suitable signal source.

In the indirect method, the antenna gain and receiver equivalent noise temperature are measured separately and the G/T is calculated from the two measurements.

The choice between the indirect method, which is of low accuracy, and of the higher accuracy, but more complex, direct method, mainly depends on the type of satellite earth station under test.