Communication cables - Specifications for test methods - Part 1-7: Electrical test methods - Velocity of propagation

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EVS **EESTI STANDARDIKESKUS**

EESTI STANDARDI EESSÕNA　　　**NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 50289-1-7:2002 sisaldab Euroopa standardi EN 50289-1-7:2001 ingliskeelset teksti.	This Estonian standard EVS-EN 50289-1-7:2002 consists of the English text of the European standard EN 50289-1-7:2001.
Käesolev dokument on jõustatud 15.10.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 15.10.2002 with the notification being published in the official publication of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

Käsitlusala: This Part 1-7 of EN 50289 details the test methods to determine the velocity of propagation of the finished cables used in analogue and digital communication systems. It is to be read in conjunction with Part 1-1 of EN 50289, which contains essential provisions for its application.	**Scope:** This Part 1-7 of EN 50289 details the test methods to determine the velocity of propagation of the finished cables used in analogue and digital communication systems. It is to be read in conjunction with Part 1-1 of EN 50289, which contains essential provisions for its application.

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Võtmesõnad: analog signals, communication cable, definition, definitions, digital, digital signals, dispersion, electric cables, electrical engineering, electrical testing, marking, measuring techniques, propagation velocity, specification, telecommunication, testing, velocity

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Communication cables - Specifications for test methods Part 1-7: Electrical test methods - Velocity of propagation

Câbles de communication - Spécifications des méthodes d'essai Partie 1-7: Méthodes d'essais électriques - Vitesse de propagation

Kommunikationskabel - Spezifikationen für Prüfverfahren Teil 1-7: Elektrische Prüfverfahren - Ausbreitungsgeschwindigkeit

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CENELEC

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

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Foreword

This European Standard was prepared by SC 46XC, Multicore, Multipair and Quad Data communication cables, of Technical Committee CENELEC TC 46X, Communication cables.

The text of the draft was submitted to the formal vote and was approved by CENELEC as EN 50289-1-7 on 2001-03-01.

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) 2002-04-01

- latest date by which the national standards conflicting
  with the EN have to be withdrawn (dow) 2004-04-01

This European Standard has been prepared under the European Mandate M/212 given to CENELEC by the European Commission and the European Free Trade Association.

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Contents

1 Scope

Part 1-7 of EN 50289 details the test methods to determine the velocity of propagation of the finished cables used in analogue and digital communication systems.

It is to be read in conjunction with Part 1-1 of EN 50289, which contains essential provisions for its application.

2 Normative references

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).

EN 50289-1-1   2001   Communication cables – Specifications for tests methods -- Part 1-1: Electrical test methods – General requirements

EN 50289-1-11   2001   Communication cables - Specifications for test methods -- Part 1-11: Electrical test methods - Characteristic impedance, input impedance, return loss

EN 50290-1-2[1)]   -   Communication cables -- Part 1-2: Definitions

3 Definitions

For the purpose of this European Standard, the definitions of EN 50290-1-2 apply in addition to the following ones.

3.1
velocity of propagation

Phase velocity

The phase velocity of propagation, v_p, as defined in EN 50290-1-2, is derived from the measurement of the phase constant ß at known frequencies:

$$v_p = 2 \times \pi \times \frac{f}{\beta} \tag{1}$$

[1)] At draft stage