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**Filtri z dielektričnimi resonatorji valovodnega tipa – 2. del: Navodilo za uporabo (IEC 61337-2:2004)**

Filters using waveguide type dielectric resonators – Part 2: Guidance for use (IEC 61337-2:2004)

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EUROPEAN STANDARD

**EN 61337-2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2004

ICS 31.140

English version

**Filters using waveguide type dielectric resonators**  
**Part 2: Guidance for use**  
(IEC 61337-2:2004)

Filtres utilisant des résonateurs  
diélectriques à modes guidés  
Partie 2: Guide d'utilisation  
(CEI 61337-2:2004)

Filter mit dielektrischen Resonatoren  
vom Wellenleitertyp  
Teil 2: Leitfaden zur Anwendung  
(IEC 61337-2:2004)

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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 49/665/FDIS, future edition 1 of IEC 61337-2, prepared by IEC TC 49, Piezoelectric and dielectric devices for frequency control and selection, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61337-2 on 2004-09-01.

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) 2005-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2007-09-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61337-2:2004 was approved by CENELEC as a European Standard without any modification.

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## Annex ZA (normative)

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

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE Where 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 60068-1	1988	Environmental testing Part 1: General and guidance	EN 60068-1 <sup>1)</sup>	1994
IEC 60068-2-1	1990	Part 2: Tests - Tests A: Cold	EN 60068-2-1	1993
IEC 60068-2-2	1974	Part 2: Tests - Tests B: Dry heat	EN 60068-2-2 <sup>2)</sup>	1993
IEC 60068-2-6	1995	Part 2: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	1995
IEC 60068-2-7	1983	Part 2: Tests - Test Ga: Acceleration, steady state	EN 60068-2-7 <sup>3)</sup>	1993
IEC 60068-2-13	1983	Part 2: Tests - Test M: Low air pressure	EN 60068-2-13	1999
IEC 60068-2-14	1984	Part 2: Tests - Test N: Change of temperature	EN 60068-2-14 <sup>4)</sup>	1999
IEC 60068-2-20	1979	Part 2: Tests - Test T: Soldering	HD 323.2.20 S3 <sup>5)</sup>	1988
IEC 60068-2-21	1999	Part 2-21: Tests - Test U: Robustness of terminations and integral mounting devices	EN 60068-2-21	1999
IEC 60068-2-27	1987	Part 2: Tests - Test Ea and guidance: Shock	EN 60068-2-27	1993
IEC 60068-2-30	1980	Part 2: Tests - Test Db and guidance: Damp heat, cyclic (12 + 12-hour cycle)	EN 60068-2-30 <sup>6)</sup>	1999

1) EN 60068-1 includes corrigendum October 1988 + A1:1992 to IEC 60068-1.

2) EN 60068-2-2 includes supplement A:1976 to IEC 60068-2-2.

3) EN 60068-2-7 includes A1:1986 to IEC 60068-2-7.

4) EN 60068-2-14 includes A1:1986 to IEC 60068-2-14.

5) HD 323.2.20 S3 includes A2 :1987 to IEC 60068-2-20.

6) EN 60068-2-30 includes A1:1985 to IEC 60068-2-30.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2-58	1999	Part 2-58: Tests - Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)	EN 60068-2-58 7)	1999
IEC 60068-2-78	2001	Part 2-78: Tests - Test Cab: Damp heat, steady state	EN 60068-2-78	2001
IEC 61337-1-1	- 8)	Filters using waveguide type dielectric resonators Part 1: General information, standard values and test conditions -- Section 1: General information and standard values	-	-
IEC 61337-1-2	- 8)	Filters using waveguide type dielectric resonators Part 1-2: Test conditions	-	-

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7) EN 60068-2-58 is superseded by EN 60068-2-58:2004, which is based on IEC 60068-2-58:2004.

8) Undated reference.

# INTERNATIONAL STANDARD

# IEC 61337-2

First edition  
2004-07

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## Filters using waveguide type dielectric resonators –

### Part 2: Guidance for use

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**FILTERS USING WAVEGUIDE TYPE DIELECTRIC RESONATORS –**

**Part 2: Guidance for use**

FOREWORD

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International Standard IEC 61337-2 has been prepared by IEC technical committee 49: Piezoelectric and dielectric devices for frequency control and selection.

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

FDIS	Report on voting
49/665/FDIS	49/683/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.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

IEC 61337 consists of the following parts under the general title *Filters using waveguide type dielectric resonators*:

- Part 1: Generic specification;<sup>1</sup>
- Part 1-1: General information, standard values and test conditions – General information and standard values;<sup>2</sup>
- Part 1-2: General information, standard values and test conditions – Test conditions;<sup>2</sup>
- Part 2: Guidance for use;
- Part 3: Standard outlines<sup>3</sup>.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

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<sup>1</sup> To be published.

<sup>2</sup> To be merged and replaced by IEC 61337-1 in the near future.

<sup>3</sup> Under consideration.

## INTRODUCTION

This part of IEC 61337 gives practical guidance on the use of filters using waveguide type dielectric resonators that are used in telecommunications and radar systems. Refer to IEC 61337-1-1 and IEC 61337-1-2 for general information, standard values and test conditions.

These dielectric filters have the features of small size, low loss, high reliability and high stability against temperature and ageing. Dielectric filters are suitable for applications such as mobile communication service, mobile satellite communication service, microwave terrestrial communication service, and fixed satellite communication service. In particular, they are now widely used for duplexers and filters of portable phones and cellular base stations.

This standard has been compiled in response to a generally expressed desire on the part of both users and manufacturers for guidance for the use of filters using waveguide type dielectric resonators, so that the filters may be used to their best advantage. For this purpose, general and fundamental characteristics have been explained in this standard.

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