

SLOVENSKI STANDARD **SIST EN IEC 62604-2:2022**

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SIST EN IEC 62604-2:2018

Radiofrekvenčni (SAW) in visokofrekvenčni (BAW) duplekserji ocenjene kakovosti - 2. del: Smernice za uporabo (IEC 62604-2:2022)

Surface acoustic wave (SAW) and bulk acoustic wave (BAW) duplexers of assessed quality - Part 2: Guidelines for the use (IEC 62604-2:2022)

Oberflächenwellen-(OFW-) und Volumenwellen-(BAW-)Duplexer mit bewerteter Qualität – Teil 2: Leitfaden für die Anwendung (IEC 62604-2:2022)

Duplexeurs à ondes acoustiques de surface (oas) et à ondes acoustiques de volume (oav) sous assurance de la qualité - Partie 2 : Lignes directrices d'utilisation (IEC 62604-2:2022)

Ta slovenski standard je istoveten z: EN IEC 62604-2:2022

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| | | |
|--------|-------------------------|-----------------------|
| 31.140 | Piezoelektrične naprave | Piezoelectric devices |
|--------|-------------------------|-----------------------|

SIST EN IEC 62604-2:2022

en

EUROPEAN STANDARD
NORME EUROPÉENNE
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October 2022

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English Version

**Surface acoustic wave (SAW) and bulk acoustic wave (BAW)
duplexers of assessed quality - Part 2: Guidelines for the use
(IEC 62604-2:2022)**

Duplexeurs à ondes acoustiques de surface (OAS) et à
ondes acoustiques de volume (OAV) sous assurance de la
qualité - Partie 2: Lignes directrices d'utilisation
(IEC 62604-2:2022)

Oberflächenwellen-(OFW-) und Volumenwellen-(BAW-
)Duplexer mit bewerteter Qualität - Teil 2: Leitfaden für die
Anwendung
(IEC 62604-2:2022)

This European Standard was approved by CENELEC on 2022-10-06. CENELEC members are bound to comply with the CEN/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 CEN-CENELEC Management Centre or to any CENELEC member.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 62604-2:2022 (E)**European foreword**

The text of document 49/1361/CDV, future edition 3 of IEC 62604-2, prepared by IEC/TC 49 "Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62604-2:2022.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2023-07-06
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2025-10-06

This document supersedes EN IEC 62604-2:2018 and all of its amendments and corrigenda (if any).

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The text of the International Standard IEC 62604-2:2022 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

| | | |
|------------------|------|--|
| IEC 60862-2:2012 | NOTE | Harmonized as EN 60862-2:2012 (not modified) |
| IEC 61019-1:2004 | NOTE | Harmonized as EN 61019-1:2005 (not modified) |
| IEC 61019-2:2005 | NOTE | Harmonized as EN 61019-2:2005 (not modified) |
| IEC 62047-7:2011 | NOTE | Harmonized as EN 62047-7:2011 (not modified) |
| IEC 62575-2:2012 | NOTE | Harmonized as EN 62575-2:2012 (not modified) |
| IEC 62604-1 | NOTE | Harmonized as EN IEC 62604-1 |

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|---|--------------|-------------|
| IEC 60862-1 | - | Surface acoustic wave (SAW) filters of assessed quality - Part 1: Generic specification | EN 60862-1 | - |
| IEC 62575-1 | - | Radio frequency (RF) bulk acoustic wave (BAW) filters of assessed quality - Part 1: Generic specification | EN 62575-1 | - |

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IEC 62604-2

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INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Surface acoustic wave (SAW) and bulk acoustic wave (BAW) duplexers of
assessed quality –
Part 2: Guidelines for the use**

**Duplexeurs à ondes acoustiques de surface (OAS) et à ondes acoustiques de
volume (OAV) sous assurance de la qualité –
Partie 2: Lignes directrices d'utilisation**

INTERNATIONAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SURFACE ACOUSTIC WAVE (SAW) AND BULK ACOUSTIC WAVE (BAW) DUPLEXERS OF ASSESSED QUALITY –

Part 2: Guidelines for the use

FOREWORD

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IEC 62604-2 has been prepared by IEC technical committee 49: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection. It is an International Standard.

This third edition cancels and replaces the second edition published in 2017. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) the term "cross-isolation" has been added to Clause 3;
- b) multiplexers are described.

NOTE In this document, SAW and BAW duplexers are treated simultaneously because both duplexers are used in the same manner, especially in mobile phone systems and have the same requirements of characteristics, test method and so on.

The text of this International Standard is based on the following documents:

| Draft | Report on voting |
|-------------|------------------|
| 49/1361/CDV | 49/1376/RVC |

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 62604 series, published under the general title *Surface acoustic wave (SAW) and bulk acoustic wave (BAW) duplexers of assessed quality*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

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

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INTRODUCTION

While in 2G systems mainly dielectric duplexers have been used, the ongoing miniaturization in 3G and 4G mobile communication systems promoted the development and application of acoustic wave duplexers due to their small size, light weight and good electrical performance. While standard surface acoustic wave (SAW) duplexers have been employed for applications with moderate requirements regarding the steepness of individual filters, applications with narrow duplex gap (e.g. Bands 2, 3, 8, 25), i.e., the frequency gap between receiving and transmitting bands, require the application of temperature-compensated (TC) SAW or bulk acoustic wave (BAW) technology, because of their better temperature characteristics and resonator Q-factors.

Standard specifications, such as those of IEC, of which these guidelines form a part, and national specifications or detail specifications issued by manufacturers will define the available combinations of centre frequency, pass bandwidth and insertion attenuation for each sort of transmitting and receiving filters and the isolation level between transmitter and receiver ports, etc. These specifications are compiled to include a wide range of SAW and BAW duplexers with standardized performances. It cannot be over-emphasized that the user should, wherever possible, select his duplexers from these specifications, when available, even if it can lead to making small modifications to his circuit to enable the use of standard duplexers. This applies particularly to the selection of the nominal frequency band.

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