

Surface Acoustic Wave (SAW) and Bulk Acoustic Wave (BAW) duplexers of assessed quality - Part 2: Guidelines for the use

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 62604-2:2012 sisaldab Euroopa standardi EN 62604-2:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 62604-2:2012 consists of the English text of the European standard EN 62604-2:2012.
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**Surface Acoustic Wave (SAW) and Bulk Acoustic Wave (BAW) duplexers
of assessed quality -
Part 2: Guidelines for the use
(IEC 62604-2:2011)**

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
(CEI 62604-2:2011)

Oberflächenwellen-(OFW-) und
Volumenwellen-(BAW-)Duplexer bewerteter
Qualität – Teil 2: Leitfaden für die
Anwendung
(IEC 62604-2:2011)

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CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 49/974/FDIS, future edition 1 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 62604-2:2012.

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) 2012-10-02
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-01-02

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Endorsement notice

The text of the International Standard IEC 62604-2:2011 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 61019-1:2004	NOTE Harmonized as EN 61019-1:2005 (not modified).
IEC 62047-7:2011	NOTE Harmonized as EN 62047-7:2011 (not modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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

NOTE When 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 60862-1	2003	Surface acoustic wave (SAW) filters of assessed quality - Part 1: Generic specification	EN 60862-1	2003
IEC 60862-2	2002	Surface acoustic wave (SAW) filters of assessed quality - Part 2: Guidance on use	EN 60862-2	2002
IEC 61019-2	2005	Surface acoustic wave (SAW) resonators - Part 2: Guide to the use	EN 61019-2	2005

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

Part 2: Guidelines for the use

1 Scope

This part of IEC 62604 concerns the duplexers, which can separate receiving signal from transmitting signal and are key components for two-way radio communications. They are generally used in mobile phones using CDMA systems such as N-CDMA, W-CDMA / Universal Mobile Telecommunication System (UMTS). So far, dielectric duplexers have been mainly used. However, recently SAW duplexers, which are utilized surface acoustic wave (SAW), are becoming popular and replacing the dielectric duplexers year by year in recent mobile phones, because of their advantage of small size, light weight and good electrical performances. In addition to SAW duplexers, BAW duplexers, which are utilized bulk acoustic wave (BAW), are also becoming in the spotlight and popular because of their higher Q property and better performances especially in PCS band.

It is neither the aim of these guidelines to explain theory, nor to attempt to cover all the eventualities which may arise in practical circumstances. These guidelines draw attention to some of the more fundamental questions, which should be considered by the user before he places an order for SAW and BAW duplexers for a new application. Such a procedure will be the user's insurance against unsatisfactory performance. Because SAW and BAW duplexers have very similar performance for the usage, it is useful and convenient for users that both duplexers are described in one standard.

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 of transmitting and receiving filters and isolation level between transmitting and receiving 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 may lead to making small modifications to his circuit to enable the use of standard duplexers. This applies particularly to the selection of the normal frequency.

2 Normative references

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.

IEC 60862-1:2003, *Surface acoustic wave (SAW) filters of assessed quality – Part 1: Generic specification*

IEC 60862-2:2002, *Surface acoustic wave (SAW) filters of assessed quality – Part 2: Guide to the use*

IEC 61019-2:2005, *Surface acoustic wave (SAW) resonators – Part 2: Guide to the use*