SLOVENSKI STANDARD
SIST EN 62276:2017

01-februar-2017

Nadomešča:
SIST EN 62276:2013

Enokristalne rezine za površinske zvočnovalovne naprave (SAW) - Specifikacije in merilne metode (IEC 62276:2016)

Single crystal wafers for surface acoustic wave (SAW) device applications - Specifications and measuring methods (IEC 62276:2016)

Einkristall-Wafer für Oberflächenwellen-(OFW-)Bauelemente - Festlegungen und Messverfahren (IEC 62276:2016)

Tranches monocristallines pour applications utilisant des dispositifs à ondes acoustiques de surface (OAS) - Spécifications et méthodes de mesure (IEC 62276:2016)

Ta slovenski standard je istoveten z: EN 62276:2016

ICS:

31.140	Piezoelektrične naprave	Piezoelectric devices

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Single crystal wafers for surface acoustic wave (SAW) device applications - Specifications and measuring methods (IEC 62276:2016)

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 62276:2016 E

European foreword

The text of document 49/1144/CDV, future edition 3 of IEC 62276, 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 62276:2016.

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)	2017-08-28
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2019-11-28

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Endorsement notice

The text of the International Standard IEC 62276:2016 was approved by CENELEC as a European Standard without any modification.

IEC 61019-1	NOTE	Harmonized as EN 61019-1.
IEC 61019-2	NOTE	Harmonized as EN 61019-2.
IEC 61019-3	NOTE	Harmonized as EN 61019-3.
ISO 4287:1997	NOTE	Harmonized as EN ISO 4287:1998.

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 1 When 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.

Publication	Year	Title	EN/HD	Year
IEC 60758	2016	Synthetic Quartz Crystal - Specifications and guidelines for use	EN 60758	2016
ISO 2859-1	1989	Sampling procedures for inspection by attributes; part_1: sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection	-	-

IEC 62276

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INTERNATIONAL STANDARD

Single crystal wafers for surface acoustic wave (SAW) device applications – Specifications and measuring methods

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ELECTROTECHNICAL
COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SINGLE CRYSTAL WAFERS FOR SURFACE ACOUSTIC WAVE (SAW) DEVICE APPLICATIONS – SPECIFICATIONS AND MEASURING METHODS

FOREWORD

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International Standard IEC 62276 has been prepared by IEC technical committee 49: Piezoelectric, dielectric and electrostatic devices and associated materials for frequency control, selection and detection.

This third edition cancels and replaces the second edition of IEC 62276 published in 2012. It constitutes a technical revision.

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

– Corrections of Euler angle indications in Table 1 and axis directions in Figure 3.

– Definition of "twin" is not explained clearly enough in 3.3.3. Therefore it is revised by a more detailed definition.

– Etch channels maximum number at quartz wafer of seed which do not pass through from surface to back surface are classified for three grades in 4.2.13 a). Users use seed portions of quartz wafers for devices. They request quartz wafers with less etch channels

in seeds to reduce defects of devices. The classification of etch channels in seed may prompt a rise in quartz wafer quality.

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

CDV	Report on voting
49/1144/CDV	49/1170/RVC

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.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website 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.

A bilingual version of this publication may be issued at a later date.

INTRODUCTION

A variety of piezoelectric materials are used for surface acoustic wave (SAW) filter and resonator applications. Prior to an IEC meeting in 1996 in Rotterdam, wafer specifications were typically negotiated between users and suppliers. During this meeting, a proposal was announced to address wafer standardization. This standard has been prepared in order to provide industry standard technical specifications for manufacturing piezoelectric single crystal wafers to be used in surface acoustic wave devices.