

ICS 31.140
CCS L21



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 15156-2015

Replacing GB/T 15156-1994

**Generic specification for piezoelectric ceramic transducing
elements**

压电陶瓷换能元件总规范

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Quarantine of the People's Republic of China;
Standardization Administration of China**

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Foreword

This standard was drafted in accordance with the rules of GB/T

1.1 is given. This standard replaces GB/T 15156-1994 "of piezoelectric ceramic transducer element of norms", compared with the GB/T 15156-1994, the main The following changes.

- Packaging, environmental testing and performance testing class standard to date references (see Chapter 2);
- Increased power generation, transformer and three actuating transducer element (see 4.1);
- Increased piezoelectric strain constant d_{31} , displacement, maximum output, technical requirements and mechanical strength of withstand voltage and test methods (see 5.4, 5.5, 5.6, 5.7, 5.8, 6.4, 6.5, 6.6,
- Adjust the chapter structure. The classification model named merged into one chapter, we will require separate test and inspection methods into two separate sections (See Chapter 4, Chapter 5 and Chapter 6);
- Increased temperature life test (see
- Revised solderability test methods for the original
- 6.6 standard (see
- Original standard vibration 6.11, and
- 6.12 for the crash test to modify the mechanical strength (including compressive strength, static bending strength) test (See
- Adjust the original standard identification test 7.3,

1 Scope

GB/T 15156-2015 is the Chinese national standard on generic specification for piezoelectric ceramic transducing elements, in the field of electronics. The /T suffix marks it

as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 2 June 2015 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 February 2016. Classification: ICS 31.140, CCS L21. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the piezoelectric ceramic transducer element (hereinafter referred to as the transducer element) General requirements, test methods and inspection rules. This standard applies to all types of piezoelectric ceramic transducer element.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 191-2008 Packaging - Pictorial signs

GB/T 2414.1-1998 Test methods for properties of piezoelectric ceramics discs radially stretching vibration mode

GB/T 2414.2-1998 Test methods for properties of piezoelectric ceramics Transverse length extension vibration mode

GB/T 2421.1-2008 Environmental testing for electric and electronic products and Overview Guide

GB/T 2423.1-2008 Environmental testing for electric and electronic products Part 2. Test methods Test A. Cold

GB/T 2423.2-2008 Environmental testing for electric and electronic products Part 2. Test methods Test B. Dry heat

GB/T 2423.3-2006 Environmental testing for electric and electronic products Part 2. Test methods - Test Cab. Damp heat test

GB/T 2423.28-2005 Environmental testing for electric and electronic products Part 2. Test methods - Test T. Soldering

GB/T 2423.30-2013 Environmental testing Part 2. Test methods Test XA and guidance. Immersion in cleaning solvents

GB/T 2423.60-2008 Environmental testing for electric and electronic products Part 2. Test

methods - Test U. Robustness of terminations and integral security Attachments strength

GB/T 2828.1-2012 Sampling procedures for inspection - Part 1. by acceptance quality limit (AQL) retrieval batch test sample plan

GB/T 3389.1 ferroelectric ceramics vocabulary Test

GB/T 3389-2008 properties of piezoelectric ceramics test method performance parameters

3 Terms and Definitions

GB/T 3389.1 and define the following terms and definitions apply to this document.

3.1 Maximum output maximumpoweroutput Zero displacement piezoelectric actuator output force at maximum operating voltage.

7.4.2 Periodic inspection packet (see

7.3.3 and 7.4.3.3). Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents. The standard proposed by the Ministry of Industry and Information Technology of the People's Republic of China. The standard frequency control and selection by the National Focal piezoelectric Standardization Technical Committee (SAC/TC182) devices. This standard was drafted. China Electronics Technology Group Corporation twenty-sixth Research Institute, China Electronic Components Industry Association Electronic ceramics and devices branch. The main drafters of this standard. Liu Guangcong, Liuliang Fang, Zhou Yang Zhou, fresh Xiaojun. This standard replaces the standards previously issued as follows:

--- GB/T 15156-1994. Total piezoelectric ceramic transducer element specification