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

GB/T 28864.1-2012

**Terms and nomenclature for cores made of magnetically soft
ferrites -- Part 1: Terms used for physical irregularities**

软磁铁氧体磁心术语定义 第1部分：物理缺陷术语

(English Translation)

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Foreword

GB/T 28864 "ferrite core definitions of the terms" is divided into three parts.

- Part 1. terms of physical defects;
- Part 2. Dimensions;
- Part 3. Transformers and inductors factory core catalog guidance concerning ferrite material information.

This section GB/T 28864 Part 1.

This section based on GB/T 1.1-2009 given rule drafting.

This section uses the translation method is equivalent to using IEC 60401-1:2002 "ferrite core definitions of terms - Part 1. Physical defect surgery language".

For ease of use, this part of IEC 60401-1:2002 made the following editorial changes.

- "This International Standard" be replaced by "this section";
- Delete international standards foreword.

This part is proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This part of the National Magnetic components and ferrite materials Standardization Technical Committee (SAC/TC89) centralized.

This section drafted by. China Electronics Science and Technology Corporation ninth Institute.

1 Scope

This section GB/T 28864 specifies the ferrite (magnetic oxide) in the magnetic core of the most common surface defects, bulk defects and defect shape Nomenclature. Most defects supplemented by illustrated. For the exact location of the defect specified in the general

name of the location and repair more specific location Ornaments combine consistent language program also gives general recommendations. When drafting the technical documentation, defect detection norms, in this section the term party Face a reference.

2 General

Physical defects refers to surface defects, bulk defects and shape defects. This refers to the quality defect state core surface, volume or shape of their pre Quality state of inconsistency. These defects macroscopic scale, namely the line of defects in the range of 1μm to several of 10mm.

In parts of ferrite material (core), there is a wide variety of surface defects, bulk defects and shape defects, which reduce the quality of the core. Different types of defects often occur simultaneously and cross each other.

Each defect is usually one or more of the following factors. inappropriate, incorrect production process, improper handling, grinding, packaging, transport.

In addition to the degree of deterioration of the quality and location of defects related, but also the type, extent and coexistence on defects. For certain types of Defect, its position on product quality decrease is particularly evident.

In extreme cases, the defect can be harmful and even decisive influence on the electromagnetic properties and mechanical properties of the core. Implementation of core Operations such as marking, winding and assembling defects may also be adversely affected.

The current trend is to continuously improve the overall quality of the core, which is the core of the number and severity of defects made more stringent restrictions.

This requires a definition of that glossary, which will be the primary basis for processing defects and their location problem.

Therefore, the requirements and procedures to check the design and evaluation of defects, the defects located in a specific location as described in more detail, the Department staging We hope to provide a unified reference. This part of the defect classification, method and apparatus for identifying defects and monitoring is useful.

3 Basic terms

Surface defects surfaceirregularity Core surface, edges, corners undesired state or appearance.

Note: Some surface defects if too serious, so that damage to the core profile and surface, can also be included in the shape defect.

Shape defect shapeirregularity Non-core or surface contour desired deformation.

Note: In some cases, less than the calibration tolerance of shape defect still cause the product to fail.

Bulk defects bulkirregularity Core internal undesired quality status.