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PEOPLE'S REPUBLIC OF CHINA**

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**Mechanical safety of cathode ray tubes
(English Translation)**

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Foreword

All technical contents of this standard is mandatory.

This standard was drafted in accordance with rules GB/T 1.1-2009 given.

This is equivalent to using the standard IEC 61965:2003 "cathode ray tube of mechanical safety" (in English).

For ease of use, this standard the following editorial changes made.

--- delete foreword IEC 61965, increasing their preface;

--- decimal place with IEC 61965 as a decimal point "," ". ";

--- delete the contents of the IEC 61965 note of Chapter 1;

Note --- 11 FIG. 3 "Rockwell hardness HRC > 60" to "Rockwell hardness HRC ≥ 60", in order to define and 8.2.3.1 Consistent;

--- delete the contents of the first to fourth paragraphs of IEC 61965 Appendix A, because it is about the IEC 61965 standard revision Description of content;

--- Appendix B to increase the number of the formula;

The IEC 61965 --- in formulas (B.1) to "may = -mg". The reason is IEC 61965 in Equation (B.1) errors, and and descriptions listed in the formula described free acceleration "g", while the use of the correct formulas in B.3, so this standard the formula was modified and used in a single vertical line identification blank equation (B.1) of the margin.

The standard proposed by the People's Republic of China Ministry of Information Industry.

This standard by the National Technical Committee of Standardization vacuo electrical devices (SAC/TC167).

Drafted by. China Electronics Standardization Institute, Rainbow Group.

Introduction

This standard describes a test method for a cathode ray tube (CRT) and specification limits.

The standard content may be replaced cathode ray tube GB mechanical safety requirements 8898 Chapter 18 as specified. The purpose is to publish Independent standard components so that the machine can be directly quoted.

This standard contains a bursting disc attached to the panel type CRT as part of the safety requirements of explosion protection system.

The tests and calculations IEC 61965 development process confirmed.

a) using a standard pellet acceptability test of mechanical strength;

b) the need for explosion tests When the ball hits the test may not always lead to rapid inhale.

Because of this impact test is a standard test overstress, so only the results were evaluated rapid inhalation, rather than from a subsequent explosion Results of mechanical stress relief CRT system.

A cathode ray tube mechanical safety

1 Scope

This standard applies to electronic apparatus as part of the overall explosion-proof manner and using a cathode ray tube and a cathode ray tube assembly (hereinafter Referred to as "CRT").

These requirements apply to the electrical or electronic measurement and test equipment, information technology equipment, medical equipment, telephone equipment, television equipment, and its Other similar electrical devices used in CRT.

It only applies to the CRT face plate constituting the electrical device housing portion composed of CRT. The test method is not suitable for independent the CRT screen protective security.

Covered by this standard CRT CRT means mounted in the housing, to prevent the rear portion under normal use conditions of the CRT by mechanical or other means of destruction, while preventing at the time of the explosion can hurt your users to CRT rear side of the flying debris.

Requirements of this standard contains a diagonal dimension greater than or equal to 76mm, and the use of the overall explosion-proof structure for the front panel the risk of flying debris caused provide protection CRT. This standard does not for flying debris shield in the other direction.

Chapter 8 of this standard (large size CRT), Chapter 9 (small size CRT) and Chapter 10 (CRT with explosion-proof membrane) gives the CRT Conformance testing procedures and acceptance criteria, Chapter 3 gives the definition of large-size and small-size CRT.

2 Normative references

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

GB/Determination of Tensile Properties of Plastics T 1040.1-2006 Part 1. General (ISO 527-1:1993, IDT) GB /1040.3-2006 Determination of tensile properties - Part 3 plastic T. Test conditions for films and sheets (ISO 527-3.

1995, IDT)

GB/T 2421.1-2008 Environmental testing for electric and electronic products overview and guidance (IEC 60068-1. 1988, IDT) Aging procedures and evaluation of test results. a first portion of the insulating material having heat resistance GB/T 11026.1-2003 Electrical (IEC 60216-1:2001, IDT) IEC 60065:2001 Audio, video and similar electronic apparatus - Safety requirements (Audio, videoandsimilarelectronicap-paratus-Safetyrequirements) ISO 8510-1:1990 adhesive material adhered to a rigid material, flexible material peeling test of

test samples - Part 1. 90 ° peel from
(Adhesives-Peel test for a flexible-bonded-to-rigid test specimen assembly-Part 1.
90 degree peel)

3 Terms and Definitions

The following terms and definitions apply to this document.

Frame type adhesive bonded frame Using preformed metal frame surrounding the outer edge of the explosion-proof structure around the CRT. Filling the gap between the frame and the metal outer edge of the CRT with a suitable material.

CRT diagonal CRT diagonal Bulb maximum diagonal dimension (e.g., line fitting mold) (not including any external metal parts).

CRT housing CRT envelope A panel or screen, a cone and a neck member consisting of structures.

Suction devacuation

CRT with the process so that the internal pressure equal to the ambient pressure.

Crack fracture

On the screen of one or more cracks or funnel housing cause rapid or slow inspiratory CRT.

Glass fragments glass particle Quality less than 0.025g of glass.

Explosion implosion

Implosion

CRT housing due to rapid and sudden collapse inward inspiration lead to burst, usually accompanied by a loud noise.

The multilayer composite CRT laminated CRT Separate structures bonded outer shield on the CRT faceplate.

Prestressed reinforcement band-type CRT prestressed banded CRT Metal tension band (on the outer edge CRT) tensioned to a certain strength by heat shrinking or other methods of construction. The structure is also possible comprising a metal rim band positioned between the outer edge of the tension band with the CRT. Band or belt or the tension both of the rim portion may be in contact with Adhesive tape, or an appropriate resin material between the barrier member.

3.10

Prestressed tension band type CRT prestressed banded CRT with protective film with explosion-proof membrane Prestressed tension band structure (see 3.9), while a film adhered as an integral part of the explosion-proof structure on the CRT faceplate.