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**Test for stress of flat panel display substrate glass-Point scan
method**

平板显示器基板玻璃应力测试 点扫描法

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

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Point scanning method for stress test of flat panel display substrate glass

1 Scope

This document gives the experimental principle of the point scanning method for determining the stress of the flat panel display substrate glass, describes the test equipment, test Test conditions, sample requirements, test steps, result expression, and test report.

This document is applicable to the stress test of flat panel display substrate glass with a thickness of 0.3mm~1.1mm and specifications of 11th generation and below.

Other glass materials are used for reference.

2 Normative references

GB/T 7962.5

GB/T 20919

GB/T 36405

3 Terms and definitions

The terms and definitions defined in GB/T 7962.5, GB/T 36405 and the following apply to this document.

3.1 Point scanning method pointscanmethod

A method of setting measurement points at certain intervals and testing them one by one.

4 Test Principle

The photoelastic modulator is used to apply a certain phase difference to the linearly polarized light, and an optical path difference is formed when the sample has stress. The stress of the sample is the optical path difference.

The ratio of the difference to the photoelastic constant is given by formula (1). $\sigma = (1)$ Where.

σ ---stress value, unit is megapascal (MPa);

δ ---Optical path difference, in nanometers per centimeter (nm/cm);

B---Photoelastic constant, the unit is nanometer per centimeter megapascal [nm/(cm-MPa)].

5.1 Stress meter

The stress meter consists of a test platform, a launch system, a detection system, an

electronic control system, a moving guide rail, a data processing system, and a computer, as shown in Figure 1.

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