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

GB/T 18910.3-2024

Replacing GB/T 18910.3-2008

**Liquid crystal display devices - Part 3: Liquid crystal
display(LCD) cells - Sectional specification
(English Translation)**

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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:

This document is Part 3 of GB/T 18910: GB/T 18910 has published the following parts:

- Liquid crystal display devices Part 1-1: General specification (GB/T 18910.11);
- Liquid crystal display devices Part 1-2: Terms and symbols (GB/T 18910.12);
- Liquid crystal display devices Part 2: Liquid crystal display module specification (GB/T 18910.2);
- Liquid crystal display devices Part 2-1: Passive matrix monochrome liquid crystal display module blank detail specification (GB/T 18910.21);
- Liquid crystal display devices Part 2-2: Blank detail specification for color matrix liquid crystal display modules (GB/T 18910.22);
- Liquid crystal display devices Part 3: Liquid crystal display panel specification (GB/T 18910.3);
- Liquid crystal display devices Part 4: Basic ratings and characteristics of liquid crystal display modules and panels (GB/T 18910.4);
- Liquid crystal display devices Part 4-1: Basic ratings and characteristics of color matrix liquid crystal display modules (GB/T 18910.41);
- Liquid crystal and solid state display devices Part 5: Environmental, durability and mechanical test methods (GB/T 18910.5);
- Liquid crystal display devices Part 6-1: Test methods for photoelectric parameters of liquid crystal display devices (GB/T 18910.61);
- Liquid crystal display devices Part 6-2: Test methods for liquid crystal display modules -

Reflective type (GB/T 18910.62);

--- Liquid crystal display devices Part 6-3: Test methods for liquid crystal display modules
Motion artifacts in active matrix liquid crystal display modules (GB/T 18910.63);

--- Liquid crystal display devices Part 10-1: Environmental, durability and mechanical test
methods Mechanical (GB/T 18910.101);

--- Liquid crystal display devices Part 10-2: Environmental, durability and mechanical test
methods Environment and durability (GB/T 18910.102);

--- Liquid crystal display devices Part 20-1: Visual inspection of monochrome liquid crystal
displays (GB/T 18910.201);

--- Liquid crystal display devices Part 20-2: Visual inspection of monochrome matrix liquid
crystal display modules (GB/T 18910.202);

--- Liquid crystal display devices Part 20-3: Visual inspection of active matrix color liquid
crystal display modules (GB/T 18910.203);

This document replaces GB/T 18910.3-2008 "Liquid crystal and solid state display devices
Part 3: Liquid crystal display screen specification" Compared with GB/T 18910.13-2008, in
addition to structural adjustments and editorial changes, the main technical changes are as
follows:

--- Deleted all references to "IEC Q" and "QC" (see 4.3 of the:2008 edition);

--- Changed the definition of production line (see 3.1, 3:1 of the:2008 edition);

--- Deleted the term "changes in manufacturing" (see 3.3 of the:2008 edition);

--- Changed the definition of the term major change (see 3.3, 3:3:1 of the:2008 edition)

--- In Table 5, only the B1 group is retained for the test items (see Table 5, Table 5 of
the:2008 edition);

--- In Table 7, only group B1 is retained in Group B (see Table 7, Table 7 of the:2008
edition):

This document is equivalent to IEC 61747-3:2015 "Liquid crystal display devices Part 3:
Sectional specification for liquid crystal panels":

The following minimal editorial changes were made to this document:

--- Corrected the error in IEC Table 8, and only group B1 was retained in group B:

Introduction

In order to meet the production, manufacturing, inspection and import and export needs of
liquid crystal display devices in my country, a series of standards for liquid crystal display

devices have been formulated:

GB/T 18910 "Liquid Crystal Display Devices" is intended to consist of the following parts:

--- Part 1-1: General specification: The purpose is to specify the general procedures for the inspection of liquid crystal display devices and to give the electro-optical characteristics test method:

General requirements, for climatic, mechanical and durability tests:

--- Part 1-2: Terms and symbols: The purpose is to define the preferred terms, definitions and text symbols for liquid crystal display devices:

--- Part 2: Liquid crystal display module section specification: The purpose is to specify the quality assessment procedures and inspection requirements required for evaluating liquid crystal display modules:

requirements, screening sequences, sampling requirements, details of tests and test methods:

--- Part 2-1: Passive matrix monochrome liquid crystal display module blank detail specification: The purpose is to specify the format and summary page requirements:

The minimum requirements and detailed specifications:

--- Part 2-2: Blank Detailed Specification for Color Matrix Liquid Crystal Display Modules: The purpose is to specify the format and summary page and detailed the requirements for the most basic content of the specification:

--- Part 3: Liquid crystal display screen specification: The purpose is to specify the quality assessment procedures and inspection requirements required for evaluating liquid crystal display screens:

requirements, screening sequences, sampling requirements, tests and test methods:

--- Part 3-1: Liquid Crystal Display (LCD) Screen Blank Detailed Specification: The purpose is to define the quality assessment system for LCD screens:

--- Part 4: Basic ratings and characteristics of liquid crystal display modules and panels: The purpose is to specify liquid crystal display panels and passive matrix monochrome Basic ratings and characteristic requirements of LCD display modules:

--- Part 4-1: Basic ratings and characteristics of color matrix liquid crystal display modules: The purpose is to specify the basic ratings and characteristics of color matrix liquid crystal display modules:

Basic ratings and characteristic requirements of the block:

--- Part 5: Environmental, durability and mechanical test methods: The purpose is to evaluate the environmental performance of liquid crystal display devices and to determine

uniform the preferred test method and preferred value of stress level:

--- Part 6-1: Test methods for electro-optical parameters of liquid crystal display devices: The purpose is to specify the standard for electro-optical parameters of liquid crystal display devices:

Standard test conditions and test methods:

--- Part 6-2: Test method for liquid crystal display module reflective type: The purpose is to specify the detailed quality of reflective liquid crystal display modules Evaluation procedures, inspection requirements, screening procedures, sample requirements, and test and measurement procedure requirements:

--- Part 6-3: Liquid crystal display module test method Active matrix liquid crystal display module motion artifacts: The purpose is to specify the transmissive General quality assessment procedure for motion picture performance of thin film transistor liquid crystal display devices:

--- Part 6-4: Test methods for liquid crystal display modules Liquid crystal display modules with dynamic backlight: The purpose is to specify the Standard test conditions and test methods for the optical performance and power consumption of active-matrix liquid crystal display modules:

--- Part 10-1: Environmental, durability and mechanical test methods Mechanical: The purpose is to evaluate the mechanical properties of liquid crystal display devices it is possible to determine a unified optimal test method and optimal value of stress level:

--- Part 10-2: Environmental, durability and mechanical test methods Environmental and durability: The purpose is to evaluate the performance of liquid crystal display devices:

Environmental performance, determine the unified optimal test method and stress level optimal value:

--- Part 10-3: Environmental, durability and mechanical test methods for glass strength and reliability: The purpose is to specify liquid crystal display devices Test methods for strength and reliability of glass:

--- Part 20-1: Visual inspection of monochrome liquid crystal displays: The purpose is to specify the visual inspection method for monochrome liquid crystal displays:

--- Part 20-2: Visual inspection of monochrome matrix liquid crystal display modules: The purpose is to specify the visual inspection of monochrome matrix liquid crystal display modules method:

--- Part 20-3: Visual inspection of active matrix color liquid crystal display modules: The purpose is to give the visual inspection of transmissive active matrix color liquid crystal display modules by the human eye: