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

GB/T 38001.53-2024

**Flexible display devices - Part 5-3: Visual assessment of image
quality and defects**

柔性显示器件 第5-3部分：目视评价方法
(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 5-3 of GB/T 38001 Flexible Display Devices: GB/T 38001 has published the following parts:

- Part 1-1: Terminology and text symbols;
- Part 5-1: Test methods for optical properties;
- Part 5-2: Test methods for optical performance of non-portable curved display devices;
- Part 5-3: Visual evaluation method;
- Part 6-1: Mechanical stress test methods;
- Part 6-2: Environmental test methods:

This document is equivalent to IEC 62715-5-3:2017 "Flexible display devices Part 5-3: Visual evaluation method":

Introduction

The new display industry is a strategic, basic and leading industry for national economic and social development: Flexible display devices are new display the flexible display industry is one of the important development directions: Due to its bendability, lightness and thinness, its market share has been steadily increasing:

The production, manufacturing, inspection and import and export trade needs of device products are to formulate a series of standards for flexible display devices: The Flexible Display Devices are proposed to be Partial composition:

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

--- Part 1-2: General specification: The purpose is to specify the classification, technical requirements, inspection methods, inspection rules, and Marking, packaging, transportation and storage requirements:

--- Part 2: Ratings and characteristics: The purpose is to specify the basic ratings and characteristics requirements of flexible display devices:

--- Part 3-1: Detailed specification for side-bent flexible display modules: The purpose is to specify the terms and definitions of side-bent flexible display modules, Classification, technical requirements, inspection methods, inspection rules, as well as marking, packaging, transportation and storage requirements:

--- Part 3-2: Detailed specification for external folding flexible display module: The purpose is to specify the terminology and Definition, classification, technical requirements, inspection methods, inspection rules, as well as marking, packaging, transportation and storage requirements:

--- Part 3-3: Detailed specification for inner folding flexible display module: The purpose is to specify the terminology and Definition, classification, technical requirements, inspection methods, inspection rules, as well as marking, packaging, transportation and storage requirements:

--- Part 3-4: Detailed specification for rolled flexible display module: The purpose is to specify the terms and definitions, technical Requirements, inspection methods, inspection rules, as well as marking, packaging, transportation and storage requirements:

--- Part 4-1: Detailed specification for wearable flexible display modules: The purpose is to define the terminology and Definitions, requirements, inspection rules, inspection methods, and packaging, transportation and storage requirements:

--- Part 5-1: Optical performance test method: The purpose is to specify the optical properties of flexible display devices under dark room and ambient light conditions:

Standard test conditions and test methods for performance:

- Part 5-2: Test methods for optical performance of non-portable curved display devices: The purpose is to specify non-portable curved display devices Standard test conditions and test methods for optical properties under darkroom conditions:
- Part 5-3: Visual evaluation method: The purpose is to specify the overall framework and operating procedures for the visual evaluation of flexible display devices:
- Part 5-10: Stretchable optical performance test specification: The purpose is to specify the stretchable flexible display device under darkroom conditions:

Standard test conditions and test methods for optical properties:

- Part 6-1: Mechanical stress test method: The purpose is to specify the mechanical stress test method for evaluating flexible display modules:
- Part 6-2: Environmental test methods: The purpose is to specify the performance of flexible display devices under specified conditions of use, storage and transportation:

Test methods for environmental adaptability:

- Part 6-3: Mechanical test methods Impact and hardness test: The purpose is to specify the standard for the mechanical reliability of flexible display devices Test methods, especially for the mechanical reliability of flexible display devices subjected to external forces, impact and hardness:

Flexible display devices Part 5-3:

Visual evaluation method

1 Scope

This document specifies the overall framework and operating procedures for the visual evaluation of flexible display devices:

This document applies to the visual evaluation methods of flexible display devices in the following states:

- Initial state and aging state under standard environmental conditions;
- State under mechanical or environmental stress conditions;
- State after mechanical durability test, state after environmental durability test, state after mechanical and environmental combined durability test:

NOTE Visual assessment of mechanical or environmental stress is often difficult to perform and this method should be used if applicable:

Visual evaluation is accomplished by comparison of the test sample with a limit sample or a