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

GB/T 27879-2025

Replacing GB/T 27879-2011

Patron external display for toll collection of highway

公路收费额显示器

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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 replaces GB/T 27879-2011 "Highway Toll Fee Display". Compared with GB/T 27879-2011, except for the structural adjustment In addition to the integration and editorial changes, the main technical changes are as follows.

- a) Added the terms and definitions of "pixel" and "half-intensity angle" (see 3.1.3 and 3.1.4);
 - b) The definitions of "fee display", "visual angle" and "static visual distance" have been changed (see 3.1.2, 3.1.5 and 3.1.6, 2011 edition). 3.1, 3.3 and 3.4);
 - c) Added the highway toll fee display component (see 4.1);
 - d) The classification has been changed (see 4.2, 4.1 of the 2011 edition);
 - e) The model and function identification codes have been changed (see 4.3, 4.2 and 4.3 of the 2011 edition);
 - f) The applicable levels of installation environment, relative humidity and ambient temperature have been changed (see 5.1, 2011 edition);
 - g) The technical requirements and test methods for materials, dimensions, appearance and functions have been changed (see 5.2~5.5 and 6.2~6.5, 2011 edition).
- 5.3.1, 5.2, 5.3.2, 5.5 and 6.2 to 6.4);

- h) The technical requirements and test methods for visibility, acoustic characteristics and reliability have been modified (see 5.6.1, 5.6.2, 5.6.5, 6.6.1, 6.6.2 and 6.6.5, 5.6.1, 5.6.2, 5.6.3, 5.8, 6.5.1, and 6.5.2 of the 2011 edition);
 - i) Added technical requirements and test methods for display screen scanning frequency and power (see 5.6.3, 5.6.4, 6.6.3 and 6.6.4);
 - j) The technical requirements and test methods for insulation resistance, electrical strength, safety grounding, power adaptability, lightning protection and overvoltage protection have been changed.
- Method, added technical requirements and test methods for contact current (see 5.6.6.1~5.6.6.6 and 6.6.6.1~6.6.6.6, 2011 Versions 5.7.1 to 5.7.5 and 6.6.1 to 6.6.4);
- k) The technical requirements and test methods for environmental adaptability have been changed, and the technical requirements and test methods for weather resistance have been added (see 5.6.7, 6.6.7, 5.10 and 6.8 of the 2011 edition);
 - l) The technical requirements and test methods for electromagnetic compatibility have been changed (see 5.6.8 and 6.6.8, 5.11 and 6.9 of the 2011 edition);
 - m) Changed the technical requirements and test methods for communication interface and protection level (see 5.7, 5.8, 6.7 and 6.8, 2011 edition 5.7.6, 5.9, 6.6.5, 6.7);
 - n) Added information security requirements and test methods (see 5.9 and 6.9);
 - o) The inspection item requirements have been changed (see 7.1, 7.1 of the 2011 edition).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed and coordinated by the National Technical Committee for Standardization of Transportation Engineering Facilities (Highway) (SAC/TC223).

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This document was first published in 2011 and this is the first revision. Highway toll fee display

1 Scope

This document specifies the composition, classification and model, technical requirements, test methods, inspection rules and standards of highway toll display Labeling, packaging, transportation and storage.

This document applies to the production and inspection of highway toll display devices.

2 Normative references

GB/T 191

GB/T 2312

GB/T 2423.1

GB/T 2423.2

GB/T 2423.3

GB/T 2423.10

GB/T 2423.17

GB/T 2423.22

GB/T 3453

GB/T 4208-2017

GB/T 5080.7-1986

GB/T 12113

GB/T 17626.2

GB/T 17626.3

GB/T 17626.4

GB/T 18226

GB/T 18802.11

GB/T 22040

GB/T 23828

3.1 Terms and Definitions

The terms and definitions defined in GB/T 23828 and the following apply to this document.