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

GB/T 26773-2011

**Intelligent transport systems -- Lane departure warning
systems -- Performance requirements and test procedures
(English Translation)**

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Foreword

This Standard corresponds to ISO 17361.2007(E) "Intelligent transport systems - Lane departure warning systems - Performance requirements and test procedures" (English edition). The degree of consistency with ISO 17361.2007(E) is non-equivalent.

This Standard was proposed by and shall be under the jurisdiction of National Technical Committee 268 on Intelligent Transport Systems of Standardization Administration of China (SAC/TC 268).

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1 Scope

This Standard specifies the definitions, classification, functions, human-machine interface (HMI), and test procedures, etc. of lane departure warning systems.

This Standard applies to passenger cars and commercial vehicles. It is not applicable to warnings on road sections with temporary or irregular lane

markings (such as road construction areas).

2 Normative references

The following documents contain provisions which, through reference in this Standard, constitute provisions of this Standard. For the dated references, their subsequent amendments (excluding corrections) or revisions do not apply to this Standard. However, the parties who enter into agreement based on this Standard are encouraged to investigate whether the latest editions of these documents are applicable. For undated reference documents, the latest editions apply to this Standard.

GB/T 3730.2-1996 Road vehicle - Masses - Vocabulary and codes (ISO 1176.1990, IDT)

GB 5768 Road traffic signs and markings

3 Terms and definitions

The terms and definitions established in GB/T 3730.2-1996 and the following apply to this Standard.

3.1 Lane

The driving zone without any fixed obstacles where the driver does not need to change the driving path.

3.2 Visible lane marking

Markings placed on the lane boundary which can be directly seen by the driver during driving (e.g. not covered by snow, etc.).

3.3 Incidental visible road feature

A visible road feature on the road surface which is not used to accurately describe the lane boundary line, but to indicate the lane position.

3.4 Lane boundary

A lane boundary line determined by visible lane markings; or determined by other incidental visible road features or by other means such as GPS, magnetic markers, etc. in the absence of visible lane markings. See Figure 1 and Figure 2.

3.5 Default lane width

The width which is preset for the lane when there is a visible lane marking on only one side of the lane and the system does not detect other lane boundaries.

3.6 Departure

The condition in which the outer edge of one of the front wheels of the vehicle or the tractor of articulated vehicle is crossing the designated marking.

4.1 System functions

The functional composition of lane departure warning systems is illustrated in Figure 3. Where suppression request, vehicle speed measurement, driver

4.2 System classification

The classification of lane departure warning systems is shown in Table 1. The system shall warn at least under one of the curve curvature conditions.

4.3.1 Basic requirements

The lane departure warning systems shall have at least the following functions.

4.3.2.1 When meeting the warning condition, the system shall automatically

send a warning to alert the driver.

4.3.2.2 The latest warning line of passenger car is located at 0.3 m outside the

lane boundary. The latest warning line of commercial vehicle is located at 1 m outside the lane boundary.

4.3.3.1 Warning form

The system shall provide a haptic and (or) audible warning which is easily perceived.

4.3.3.2 Conflict with other warnings

If the vehicle is equipped with other warning systems such as the vehicle front collision warning system (FVCWS), the lane departure warning system (LDWS) shall, by haptics, hearing, or vision, or a combination, provide the driver with a clearly identifiable warning.

4.3.4.1 The system may be equipped with an on/off device for the driver to operate at any time.

Rate of departure Maximum distance within the lane boundary

The TTLC is multiplied by the rate of departure. See 3.9.

4.3.4.2 The system may detect the suppression request signal, to minimize unnecessary warnings. For example, when the driver is performing steering, braking, or other higher-priority operations such as collision avoidance operation, the system suppression request is in effect.

4.3.4.9 The system may suppress additional warnings, to avoid annoying the driver due to excessive warning information.

5.1 Test environmental conditions

It shall use the following test environmental conditions.

5.2 Test lane conditions

The radius of curvature of the test lane shall be within $\pm 10\%$ of the minimum radius of curvature of the corresponding type in Table 1. The test lane shall be of sufficient length, to meet the needs of the minimum operating speed (i.e. Type I 17 m/s, Type II 20 m/s), so that the vehicle can, at a rate of departure of