

Translated English of Chinese Standard: GBT44489-2024

www.ChineseStandard.net → Buy True-PDF → Auto-delivery.

Sales@ChineseStandard.net

GB

NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA

ICS 07.040

CCS A 75

GB/T 44489-2024

**Requirements for examination of advanced assistant driving
map**

高级辅助驾驶地图审查要求

Issued on: September 29, 2024

Implemented on: January 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of PRC.**

Table of Contents

Foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Basic requirements	5
4.1 Qualifications of the submitting entity for review	5
4.2 Map data range	5
4.3 Requirements for confidentiality processing of spatial location	6
4.4 Materials submitted for review	6
5 Review content	7
5.1 Boundary	7
5.2 Ground feature entities	7
5.3 Place names or names of points of interest	8
5.4 Ground feature attributes	8
6 Review comments	9
References	11

Requirements for examination of advanced assistant driving map

1 Scope

This document specifies the basic requirements, review content, and review opinions for the review of advanced assistant driving maps for public use in Level-2 and Level-3 driving automation systems of smart cars.

This document applies to the review activities of advanced assistant driving maps for public use in in Level-2 and Level-3 driving automation systems of smart cars.

NOTE: For the classification of Level-2 and Level-3 driving automation for smart cars, see 3.3 in GB/T 40429-2021.

2 Normative references

The provisions of the following documents constitute the essential clauses of this document through normative references in this text. Among them, for referenced documents with dates, only the versions corresponding to the dates are applicable to this document; for referenced documents without dates, the latest versions (including all amendments) are applicable to this document.

GB/T 14911-2008 Basic terms of surveying and mapping

GB 20263 Navigable electronic map - Basic requirements of security processing technology

GB/T 35764 Requirements for representation of public maps

GB/T 40429-2021 Taxonomy of driving automation for vehicles

3 Terms and definitions

The terms and definitions defined in GB/T 14911-2008, GB/T 40429-2021 and the following apply to this document.

3.1 advanced assistant driving map

A data set containing geographic coordinates of spatial location, which can be combined

- g) Internal roads and special roads within units and residential areas are not included.

NOTE: For the description of rural roads and farm machinery roads, see 4.4 of GB/T 20257.1-2017.

4.3 Requirements for confidentiality processing of spatial location

4.3.1 Processing methods

The spatial location confidentiality processing of the advanced assistant driving map shall be completed in accordance with the methods specified in GB 20263.

4.3.2 Processing accuracy

The plan-positional accuracy of the advanced assistant driving map after spatial position confidentiality processing shall not be better than 10 m (not included).

NOTE: Precision is measured by standard deviation.

4.3.3 Supporting documents

The spatial location confidentiality processing method used by the advanced assistant driving map shall obtain a supporting document that has been approved by the national competent authority.

4.4 Materials submitted for review

Materials submitted for review of the advanced assistant driving map shall include but not be limited to the following materials.

- a) Application form for map review.
- b) Data of map submitted for review.
- c) Map description, including:
 - 1) Description of map data, including data source, data coverage, user objects, data volume, data storage method, principles for handling confidential content, and examples of handling confidential content;
 - 2) Map data application description, including product functions, usage, etc.;
 - 3) Description of map data application management measures, including safety emergency response mechanism, emergency response time, etc.
- d) Documents proving that the spatial location has been kept confidential, and

- g) Other content that is prohibited from being disclosed by the state.

5.2.2 Road entities

The road entities involved in the advanced assistant driving map shall meet the following requirements:

- a) Facilities on the roadside and above the road are expressed as point symbols (single points) to indicate the existence of ground features;
- b) Do not use point clouds, real-life images or other measured results to express roads and their related attribute information.

NOTE: Facilities on the roadside and above the road mainly include traffic lights, traffic signs, poles, obstacles (such as safety islands), etc.

5.3 Place names or names of points of interest

The place names or names of points of interest in the advanced assistant driving map shall meet the following requirements:

- a) Do not contain the names of the ground feature entities in 5.2.1;
- b) Other place names or names of points of interest shall comply with the requirements of GB/T 35764.

5.4 Ground feature attributes

5.4.1 Ground feature attributes that shall not be included

The advanced assistant driving map shall not contain the following ground feature attributes:

- a) The height limit, width limit, clearance, load capacity and slope of the bridge;
- b) the height and width of the tunnel;
- c) Road paving materials;
- d) The relative heights of facilities on the roadside and above the road;
- e) Elevation.

5.4.2 Road slope and curvature

5.4.2.1 Road slope

The road slope field in the advanced assistant driving map shall meet the following requirements.

- a) Do not express the true slope value.
- b) The slope value can be expressed using graded values after grading processing and in accordance with the following rules:
 - 1) The slope angle value is graded, and the grading interval is not better than 0.1° ;
 - 2) If expressed in other ways, the grading interval after conversion into the slope angle value shall not be better than 0.1° .

NOTE: The slope includes the transverse slope value and the longitudinal slope value.

5.4.2.2 Road curvature

The road curvature field in the advanced assistant driving map shall meet the following requirements.

- a) Do not express the true curvature value.
- b) The curvature value can be expressed using the graded value after grading processing and in accordance with the following rules:
 - 1) The curvature value is graded, and the grade interval is not better than 10^{-5}m^{-1} ;
 - 2) If expressed in other ways, the grading interval after conversion into the curvature value shall not be better than 10^{-5}m^{-1} .

NOTE: The curvature value is the reciprocal of the curvature radius.

6 Review comments

The review comments are divided into the following categories:

- a) Those that do not comply with the provisions of 4.1 and 4.4 will not be reviewed;
- b) If there is any non-compliance with 4.2, 4.3 and Chapter 5, the advanced assistant driving map is deemed to have failed the review;
- c) If none of the above situations exist, the advanced assistant driving map is deemed to have passed the review.

This is an excerpt of the PDF (Some pages are marked off intentionally)

Full-copy PDF can be purchased from 1 of 2 websites:

1. <https://www.ChineseStandard.us>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Select your country (currency), for example: USA (USD); Germany (Euro).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Tax invoice can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with download links).

2. <https://www.ChineseStandard.net>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Add to cart. Only accept USD (other currencies - <https://www.ChineseStandard.us>).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with PDFs attached, invoice and download links).

Translated by: Field Test Asia Pte. Ltd. (Incorporated & taxed in Singapore. Tax ID: 201302277C)

About Us (Goodwill, Policies, Fair Trading...): <https://www.chinesestandard.net/AboutUs.aspx>

Contact: Wayne Zheng, Sales@ChineseStandard.net

Linkin: <https://www.linkedin.com/in/waynezhengwenrui/>

----- The End -----