

ICS 03.220.20

CCS R 04



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

GB/T 44286.1-2024

**Application of cooperative intelligent transportation
systems-Part 1: Driving assistance application set**

合作式智能运输系统应用集 第1部分：车辆辅助驾驶应用集

Issued on: August 23, 2024

Implemented on: March 1, 2025

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

Table of Contents

Preface	III
Introduction	IV
1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Abbreviations	2
5 Application categories	3
6 Vehicle Assisted Driving Application Set	3
References	30

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 is required.

This document is part 1 of GB/T 44286 "Cooperative Intelligent Transport System Application Set". GB/T 44286 has been published as follows part.

Part 1: Vehicle Assisted Driving Application Set; - Part 2: Vehicle cooperative driving application set. - 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 is proposed and coordinated by the National Technical Committee for Standardization of Intelligent Transport Systems (SAC/TC 268).

This document was drafted by: Highway Research Institute of the Ministry of Transport, China Academy of Information and Communications Technology, Tongji University, and CAICT New Center (Chengdu) Co., Ltd., Shandong Transportation Planning and Design Institute Group Co., Ltd., Shanghai Motor Vehicle Inspection and Certification Technology Research Center Co., Ltd., SAIC Volkswagen Automotive Co., Ltd., Neusoft Reach Automotive Technology (Shenyang) Co., Ltd., Beijing Wanji Technology Co., Ltd., Chongqing Changan Automobile Co., Ltd., Qualcomm Wireless Communications Technologies (China) Co., Ltd., China Academy of Telecommunications Science and Technology Co., Ltd., Beijing Nebula Internet Technology Co., Ltd. and Beijing Baidu Intelligent Driving Technology Co., Ltd.

The main drafters of this document are: Hou Dezao, Li Wanjun, Chen Hongyu, Li Xin, Jiao Weiyun, Ge Yuming, Lin Lin, Bi Xin, Wang Longxiang, Wu Xunan, Bi Yufeng, Wang Chengcheng, Ding Xiaoe, Cao Jianyong, Ma Lingfeng, Liang Rui, Xiong Jiyu, Qi Shuai, Zhang Chunmin, Chen Bingshuai, Ma Chunxiang, Fu Jianwei, Niu Lei, Tao Peng, Yin Yue, Zhang Xueyan, Deng Hui, Fang Jiayi, Wang Yizhi, Zhang Guangqi, Wang Kun, Peng Wei.

Introduction

Autonomous driving and vehicle-road collaboration technologies have shown good development prospects. In order to better meet the future development needs of intelligent connected driving, Based on the actual road and traffic conditions, define the application scenarios of intelligent connected driving that are in line with the development of China's industry, and formulate relevant application standards to support The development path from assisted driving to high-level intelligent connected driving. GB/T 44286 "Collaborative Intelligent Transport System Application Set" provides support for intelligent The description of application scenarios and related requirements of connected driving is planned to consist of two parts.

Part 1: Vehicle Assisted Driving Application Set. The purpose is to specify the application scenarios and basic performance that can be achieved by assisted intelligent driving.

Requirements and basic content of data interaction.

Part 2: Vehicle cooperative driving application set. The purpose is to specify the application scenarios and basic performance that can be achieved by cooperative intelligent driving.

Requirements and basic content of data interaction.

Collaborative Intelligent Transportation System Application Set Part 1: Vehicle Assisted Driving Application Set

1 Scope

This document specifies the set of vehicle assisted driving applications in cooperative intelligent transportation systems, including typical application classification, application definition, typical Scenario description, basic performance requirements and basic content of data interaction.

This document is applicable to the development and verification of vehicle assisted driving application scenarios for cooperative intelligent transportation systems.

2 Normative references

This document has no normative references.

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 cooperative intelligent transportation system

Through the information interaction between people, vehicles and roads, intelligent coordination and cooperation between vehicles and infrastructure, vehicles and vehicles, and vehicles and people can be achieved.

An intelligent transportation system.

[Source. GB/T 31024.1-2014, 2.1]

3.2 Scenarios

Within a certain time and space, relevant geographical location, natural environment, roads, traffic flow and other factors and the vehicle's own driving status and The situation of executing the task.

3.3 On board unit

The device installed on the vehicle has interfaces for information collection, processing, storage, input and output, and has the function of a dedicated short-range wireless communication module. entity.

[Source. GB/T 31024.1-2014, 2.3]

3.4 Road side unit

Installed on both sides of the road or on the gantry, it receives information from and sends information to the vehicle-mounted unit through dedicated short-range wireless communication functional entity.

[Source. GB/T 31024.1-2014, 2.4, modified]

3.5 Host vehicle

The target vehicle with the OBU installed and the application running.

3.6 remote vehicle

A vehicle that can be equipped with an onboard unit and run applications and cooperate with the main vehicle.