IVISTA

China Intelligent Vehicle Index

No.: IVISTA-SM-TI-A0-2026

China Intelligent Vehicle Index Testing and Evaluation Protocol

(Version 2026)

IVISTA

Published by China Automotive Engineering Research Institute Co., Ltd.

IVISTA

Table of Contents

Foreword II
1 Scope 1
2 Framework 1
3 Test Method 1
4 Evaluation Method 2

IVISTA

Foreword

Intelligent and connected vehicles (ICVs) represent the core track for China's transition from a major automobile producer to an automotive power. They serve as a key driver for new quality productive forces and as a strategic pivot for enhancing the country's comprehensive strength and global competitiveness. Their development is vital to the overall future of China's automotive industry. The test and evaluation of ICVs, as key safeguards for strictly maintaining the bottom line of safety, promoting technological upgrades, and facilitating large-scale deployment, serve as the core support for ensuring the high-quality development of the industry.

To scientifically evaluate the comprehensive performance of ICVs, support national strategies, drive technological progress, and meet consumers' needs in purchasing and using vehicles, China Automotive Engineering Research Institute Co., Ltd., under the joint guidance of the China Association of Automobile Manufacturers and the China Society of Automotive Engineers, has integrated test and evaluation experience and research findings from various fields. By comprehensively analyzing the full lifecycle risk chain of vehicles and continuously optimizing the IVISTA China Intelligent Vehicle Index (Revision of Version 2023), the institute has constructed a test and evaluation system covering four dimensions: intelligent safety, intelligent driving, intelligent parking, and intelligent cabin, and officially launched the IVISTA China Intelligent Vehicle Index Testing and Evaluation Protocol (Version 2026).

This protocol adopts a top-level design centered on the entire vehicle usage process and risk chain. Firstly, it underpins the bottom line with intelligent safety, integrates closed-site test and simulation test, and focuses on evaluating the vehicle's risk response capabilities, interaction safety, and cybersecurity and privacy security in complex scenarios. For intelligent driving, it further assesses the vehicle's drivability, traffic regulation compliance, comfort and human-like driving performance in continuous closed-site scenarios as well as real traffic flow scenarios, including inter-provincial expressways, urban expressways, and central urban areas. For intelligent parking, it focuses on typical high-frequency scenarios, complex edge cases and real garage scenarios. Combining closed sites and public parking lots, it comprehensively evaluates the capability of the parking assist system. For the intelligent cabin, it centers on the multi-modal interaction richness and the terminal interconnection convenience, covers dimensions such as smart sound field, AI interaction, intelligent display, smartphone-vehicle connectivity and sentry mode, so as to quantitatively evaluate users' intelligent experience from multiple dimensions.

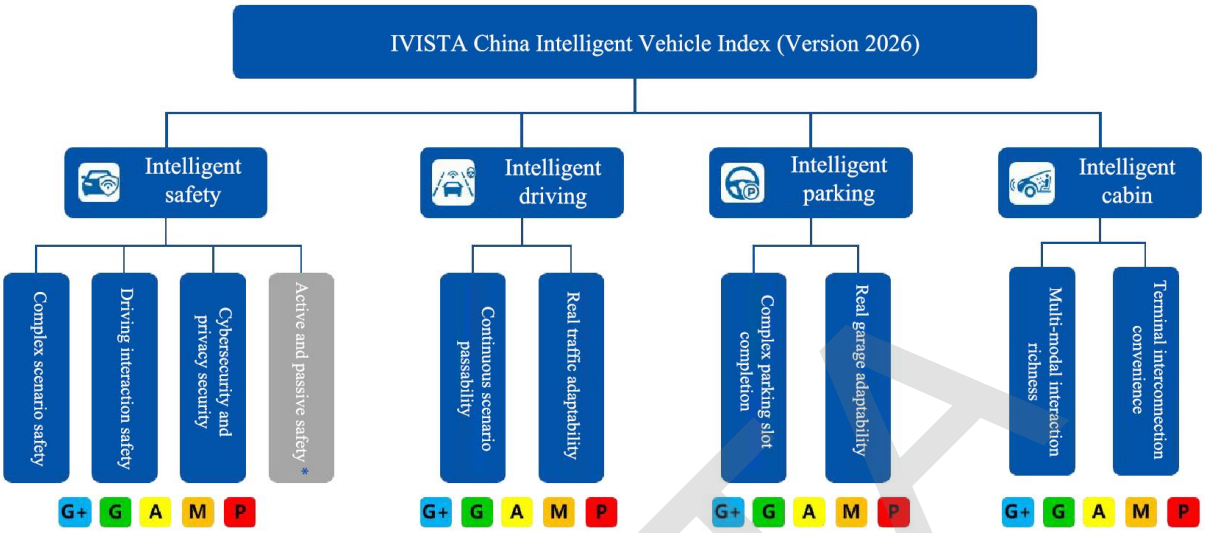
Adhering to the principles of science, rationality, and objectivity, this protocol aims to provide authoritative and objective reference for consumers in vehicle purchase, offer clear guidance for technological breakthroughs in the industry, and continuously inject core momentum into the high-quality development of the ICV industry.

1 Scope

This document specifies the relevant test and evaluation methods of IVISTA China Intelligent Vehicle Index (Version 2026).

2 Framework

IVISTA China Intelligent Vehicle Index (Version 2026) comprises the Intelligent Safety Index, Intelligent Driving Index, Intelligent Parking Index, and Intelligent Cabin Index, providing comprehensive testing and evaluation of intelligent vehicles across four dimensions.



3 Test Method

The test method of IVISTA China Intelligent Vehicle Index (Version 2026) is shown in Table 1.

Table 1 China Intelligent Vehicle Index Test Method

S/N	Sub-index	Dimension	Test Items	Test Method
1	Intelligent safety	Complex scenario safety	Urban scenario	See Annex A for details
2			Highway and expressway scenarios	
3			Simulation test	
4		Driver and HMI interaction safety	Driver state monitoring	
5			Driving visual assistance	
6			Speech interaction safety (penalty item)	
7		Intelligent lighting safety	Adaptive driving beam	
8			Assistance projection function (bonus item)	
9		Cybersecurity	Remote control anti-theft	
10			In-vehicle network protection	
11		Privacy security	Personal privacy security	
12			Personal rights and interests protection	

IVISTA

S/N	Sub-index	Dimension	Test Items	Test Method
13	Intelligent driving	Continuous scenario passability	Highway/urban expressway continuous test scenarios	See Annex B for details
14			Urban continuous test scenarios	
15		Real traffic adaptability	Real traffic test scenarios	
16	Intelligent parking	Complex parking slot completion	Parking into a parking slot with interference	See Annex C for details
17			Parking into difficult parking slots	
18		Real garage adaptability	Scenario passability	
19			Full-process passability	
20		Featured items	Optional	
21	Intelligent cabin	Multi-modal interaction richness	Intelligent sound field	See Annex D for details
22			AI interaction	
23			Intelligent display	
24		Terminal interconnection convenience	Smartphone-vehicle connectivity	
25			Sentry mode	

For detailed test protocols, see Annex A - IVISTA China Intelligent Vehicle Index (Version 2026) - Test and Evaluation Protocol for Intelligent Safety Index; Annex B - IVISTA China Intelligent Vehicle Index (Version 2026) - Test and Evaluation Protocol for Intelligent Driving Index; Annex C - IVISTA China Intelligent Vehicle Index (Version 2026) - Test and Evaluation Protocol for Intelligent Parking Index; and Annex D - IVISTA China Intelligent Vehicle Index (Version 2026) - Test and Evaluation Protocol for Intelligent Cabin Index.

4 Evaluation Method

4.1 Overall rating of the intelligent safety index

The overall rating of the intelligent safety index is divided into five levels: Good+ (G+), Good (G), Acceptable (A), Marginal (M) and Poor (P). The specific rating methods are shown in Table 2.

Table 2 Overall Rating of Intelligent Safety Index

Overall rating	Overall Rating of Intelligent Safety
Good+ (G+)	Scoring rate ≥ 90%
Good (G)	90% > scoring rate ≥ 85%
Acceptable (A)	85% > scoring rate ≥ 80%
Marginal (M)	80% > scoring rate ≥ 60%
Poor (P)	Scoring rate < 60%

4.2 Overall rating of intelligent driving index

The overall rating of intelligent driving index is divided into five levels: Good+ (G+),

Good (G), Acceptable (A), Marginal (M) and Poor (P). The specific rating methods are shown in Table 3.

a) The overall rating is Good+ (G+): scoring rate of the intelligent driving index test ≥ 90%;

b) The overall rating is Good (G): 90% > scoring rate of the intelligent driving index test ≥ 80%;

c) The overall rating is Acceptable (A): 80% > scoring rate of the intelligent driving index test ≥ 65%;

d) The overall rating is Marginal (M): 65% > scoring rate of the intelligent driving index test ≥ 50%;

e) The overall rating is Poor (P): the scoring rate of the intelligent driving index test < 50%.

When the scoring rate of intelligent safety in complex scenarios is less than 85%, the evaluation level of intelligent driving shall not be higher than A. The scoring rate is the test score divided by the total score, rounded to one decimal place.

Table 3 Overall Rating of Intelligent Driving Index

Intelligent Driving Index Rating	Score Range	Description
Good+ (G+)	Scoring rate ≥ 90%	If the scoring rate for the 'Complex Scenario Safety' dimension falls below 85%, the maximum achievable Intelligent Driving Index rating is capped at Acceptable (A).
Good (G)	90% > scoring rate ≥ 80%	
Acceptable (A)	80% > scoring rate ≥ 65%	
Marginal (M)	65% > scoring rate ≥ 50%	
Poor (P)	Scoring rate < 50%	

4.3 Overall rating of the intelligent parking index

The overall rating of the intelligent parking index is divided into five levels: Good+ (G+), Good (G), Acceptable (A), Marginal (M) and Poor (P). The specific rating methods are shown in Table 4.

a) The overall rating is Good+ (G+): scoring rate of the parking assist system test ≥ 90%;

b) The overall rating is Good (G): 90% > scoring rate of the parking assist system test ≥ 80%;

c) The overall rating is Acceptable (A): 80% > scoring rate of the parking assist system test ≥ 60%;

d) The overall rating is Marginal (M): 60% > scoring rate of the parking assist system test ≥ 40%;

e) The overall rating is Poor (P): scoring rate of the parking assist system test < 40%.

IVISTA

Table 4 Overall Rating of Intelligent Parking Index

Intelligent Parking Index Rating	Score Range
Good+ (G+)	Scoring rate ≥ 90%
Good (G)	90% > scoring rate ≥ 80%
Acceptable (A)	80% > scoring rate ≥ 60%
Marginal (M)	60% > scoring rate ≥ 40%
Poor (P)	Scoring rate < 40%

4.4 Overall rating of intelligent cabin index

The overall rating of intelligent cabin index is divided into five levels: Good+ (G+), Good (G), Acceptable (A), Marginal (M) and Poor (P). The specific rating methods are shown in Table 5.

a) The overall rating is Good+ (G+): scoring rate of the intelligent cabin index test ≥ 90%;

b) The overall rating is Good (G): 90% > scoring rate of the intelligent cabin index test ≥ 80%;

c) The overall rating is Acceptable (A): 80% > scoring rate of the intelligent cabin index test ≥ 65%;

d) The overall rating is Marginal (M): 65% > scoring rate of the intelligent cabin index test ≥ 50%;

e) The overall rating is Poor (P): the scoring rate of the intelligent cabin index test < 50%.

Table 5 Overall Rating of Intelligent Cabin Index

Intelligent Cabin Index Rating	Score Range
Good+ (G+)	Scoring rate ≥ 90%
Good (G)	90% > scoring rate ≥ 80%
Acceptable (A)	80% > scoring rate ≥ 65%
Marginal (M)	65% > scoring rate ≥ 50%
Poor (P)	Scoring rate < 50%

For detailed evaluation protocols, see Annex A - IVISTA China Intelligent Vehicle Index (Version 2026) - Test and Evaluation Protocol for Intelligent Safety Index; Annex B - IVISTA China Intelligent Vehicle Index (Version 2026) - Test and Evaluation Protocol for Intelligent Driving Index; Annex C - IVISTA China Intelligent Vehicle Index (Version 2026) - Test and Evaluation Protocol for Intelligent Parking Index; and Annex D - IVISTA China Intelligent Vehicle Index (Version 2026) - Test and Evaluation Protocol for Intelligent Cabin Index.

Relevant test and evaluation protocols are available on the official website of CAERI Automotive Index (www.autoindex.org.cn) and the official website of IVISTA (www.i-vista.org).