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**CERTIFICATION AND ACCREDITATION INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

RB/T 247-2026

**Automotive chip testing organizations-General requirements for
evaluation of basic capability**

汽车芯片测试机构 基础能力评价通用要求

(English Translation)

*Based on the 2025 public consultation draft. Free update to the final text upon
publication.*

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Foreword

Note on this edition: the English translation is based on the public consultation draft (2025) of this standard, the latest text in circulation. The final text issued by CNCA on 6 August 2026 has not yet been published in full; when it is, the translation is updated free of charge for buyers.

This document was drafted in accordance with the rules given in GB/T 1.1-2020.

This document is one of the five standards of the automotive chip certification review series: RB/T 133 (general evaluation requirements), RB/T 134 (design organizations), RB/T 222 (certification bodies), RB/T 247 (testing organizations) and RB/T 248 (computing chip testing).

This document was proposed by and is under the jurisdiction of the Certification and Accreditation Administration of the People's Republic of China (CNCA). Drafting organization: Certification and Accreditation Technology Research Center of the State

Administration for Market Regulation. This document is issued for the first time.

Introduction

The transformation of the automotive industry towards electrification, intelligence, connectivity and sharing upgrades core vehicle functions such as perception, decision and control, and automotive chips are the hardware foundation that makes these functions safe and reliable. Testing and verification are a key step before a chip goes into a vehicle; they mainly cover reliability, safety and key performance testing.

The testing capability of domestic automotive chip testing organizations is uneven, and there are no specifications for the capability of such organizations, so test results are hard to compare and chip selection becomes more costly. This document is intended to guide the orderly development of testing organizations and to standardize their build-up, operation and management.

1 Scope

This document specifies requirements for the evaluation principles, evaluation content, evaluation methods and procedure, evaluation results and evaluation organization for the technical capability of automotive chip testing organizations.

This document is applicable to the build-up, operation management, capability recognition and supervision of automotive chip testing organizations.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition (including any amendments) applies.

GB/T 27025-2019 General requirements for the competence of testing and calibration laboratories · GB/T 34590.1-2022 Road vehicles - Functional safety - Part 1: Vocabulary · GB/T 34590.11-2022 Road vehicles - Functional safety - Part 11: Guidelines on application to semiconductors · GB 44495-2024 Technical requirements for vehicle cybersecurity · GB/T 29332-2012 Semiconductor devices - Discrete devices - Part 9: Insulated-gate bipolar transistors (IGBTs) · ISO/SAE 21434 Road vehicles - Cybersecurity engineering · GB/T 40861-2021 General technical requirements for vehicle cybersecurity · GB/T 44464-2024 General requirements for vehicle data · QC/T 1136-2020 Environmental test requirements and test methods for IGBT modules of electric vehicles

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 automotive chip

integrated circuit component used in the automotive field that meets the requirements of the automotive quality management system and the technical requirements of the various automotive application scenarios

3.2 testing organization

technical service organization that tests and evaluates test objects according to specified procedures and methods and provides test data or reports

3.3 reliability testing

series of environmental stress and workload tests performed on automotive chips under specified conditions and for a specified time, to evaluate the stability and reliability of their performance, function and structure and ensure that they work properly and reach the expected service life in actual use

3.4 functional safety testing

testing that evaluates, by methods such as fault injection and verification of safety mechanisms, the ability of an automotive chip to keep providing functions at the expected safety level when faults or failures occur

3.5 information security testing

testing that evaluates, by methods such as side-channel analysis and fault injection, the ability of an automotive chip to preserve the confidentiality, integrity and availability of data against malicious intrusion, unauthorized access and data tampering

4 Evaluation principles

4.1

Attention to resources

The evaluation looks at the personnel, instruments and equipment, standards, environment and information management systems needed for the testing capability.

4.2

Attention to special test items

The evaluation looks at test items that require building hardware and software platforms.

4.3

Attention to practical operation

The evaluation looks at the testing experience of the personnel and at the conformity and proficiency of their practical work with the methods specified in the standards.

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