

ICS 35.240
CCS L 70



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

GB/T 45288.1-2025

**Artificial intelligence - Large models - Part 1: General
requirements**

人工智能 大模型 第1部分：通用要求

Issued on: February 28, 2025

Implemented on: February 28, 2025

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

Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Reference Architecture	2
5 General requirements	3
5.1 Resource Pool	3
5.2 Tools	4
5.3 Data Resources	6
5.4 Model	6
5.5 Industry Application	7
7 References	8

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. This document is part 1 of GB/T 45288 "Artificial Intelligence Big Model". GB/T 45288 has been published in the following parts.

1. General requirements;

2. Evaluation indicators and methods;

3. Service capability maturity assessment. Please note that some of the contents of this document may involve patents. The issuing organization of the document does not assume the responsibility for identifying patents. This document was proposed and coordinated by the National Information Technology Standardization Technical Committee (SAC/TC28). This document was drafted by: China Electronics Technology Standardization Institute, Shanghai Artificial Intelligence Innovation Center, Huawei Cloud Computing Technology Co., Ltd., Ant Technology Group Co., Ltd., Tsinghua University, Institute of Automation, Chinese Academy of Sciences, Beijing Zhongguancun Laboratory, Beijing Baidu Network Technology Co., Ltd. Technology Co., Ltd., China Railway Construction Corporation Limited, Beijing Qihoo Technology Co., Ltd., China Southern Power Grid Co., Ltd., China Mobile Communications Xin Co., Ltd. Research Institute, China National Energy Investment Group Co., Ltd. Information Technology Branch, Hangzhou Lianhui Technology Co., Ltd., He Yinan,

Zhao Chunhao, Yang Muyun, Yu Wenxin, Yang Chao, He Gang, Hao Wenjian, Xue Yunzhi, Liu Aishan, Wu Xihong, Liu Shang, Yu Tian, Liu Ying, Chen Xi, Zheng Ruolin, Shen Zhiyue, Nie Jiandi, Wang Xianqing, Wang Jinqiao, Hu Quanyi, Zhu Guibo, Han Honggui, Pan Enrong, Wu Shanshan, Kong Hao, Yu Lei, Zheng Zhe, Liu Zitao, Zhu Jiang, Chen Hongzhi, Fan Baoyu, Liu Wei, Cui Mingfei, Gao Pengjun, Zhang Feng, Mei Jingqing, Zeng Dingheng, Song Yu, Zhao Lei, Gao Hui, Zhang Xu, Zhong Kaitao, Li Bin, Liu Shu, Liang Jiaen, Wei Zizhong, Shu Minglei, Chen Minggang, Meng Lingzhong, Wang Zikai, Liu Changxin, Fan Cunhang, Sheng Ruogu, Sun Jin, Kong Weisheng, Chen Liming, Zheng Hua, Zhao Xiaowei, Feng Junlan, Yang Yukuan, Sun Wenqing, Zhu Lin, Zeng Jie, Qian Ling, and Zhang Tao.

Big models have become an important technical means for the development of artificial intelligence and play an important role in leading industrial transformation. Relevant institutions have successively researched and developed more than 100 large-scale model products and evaluation lists, making it difficult for users to effectively evaluate the technical level of artificial intelligence products. GB/T 45288 "Artificial Intelligence Big Model" aims to specify the technical requirements, evaluation indicators and service capabilities of general big models. Force is proposed to consist of five parts.

- 1.General requirements. The purpose is to establish a reference architecture for large models and specify general technical requirements.
- 2.Evaluation indicators and methods. The purpose is to establish the evaluation indicators of large models and describe the evaluation methods.
- 3.Service capability maturity assessment. The purpose is to provide the large model service capability maturity level and assessment method.
- 4.Computer vision big model. The purpose is to define the concept and function of the computer vision big model and specify the technical requirements and testing methods.
- 5.Multimodal large models. The purpose is to define the concept and function of multimodal large models, specify technical requirements and tests method. Artificial Intelligence Big Model Part

1 Scope

Part 1 of China's national standard series on large models, establishing the reference architecture and general requirements. The series is China's attempt to give a rapidly moving field a common description, and this part is its foundation. A large model is not a single artefact but a stack - training data and its provenance, the base model, fine-tuning and alignment, the inference infrastructure, the retrieval and tool interfaces around it, and the application that reaches the user - and every part of it is supplied by different parties with different obligations. Without an agreed architecture, the terms in a contract, a procurement specification or a regulation do not attach to anything definite. This part

establishes that architecture and specifies the common requirements that apply across it, for the development, preparation, deployment and application of large models. Parts 2 and 3 build the evaluation methods and service capability framework on top of it.

This document establishes a reference architecture for large models and specifies common requirements for large models. This document is applicable to large-scale model development, preparation, deployment and application.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 42018-2022 Information technology artificial intelligence platform computing resources specification

GB/T 42755-2023 Artificial Intelligence Data Labeling Procedure for Machine Learning

GB/T 45401.1-2025 Scheduling and collaboration of artificial intelligence computing devices Part

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 large-scale model large-scale deep learning model A deep learning model that is trained based on a large amount of data, has a complex computing architecture, can handle complex tasks, and has a certain degree of generalization.

Note. The number of parameters of a large model is determined by its function and mode, and is generally not less than 100 million. The total amount of data used for large model training is affected by the number of parameters. The logarithm of the number of parameters of the converged large model is proportional to the logarithm of the total amount of its training data.

3.2 Large-scale model service Services for developing and applying large models and large model systems, as well as services that use these as a means to support the business activities of the demand side.

Note. Common large model services include large model platform services, large model development and customization services, and large model reasoning and operation services.

3.3 task The training or inference object being scheduled.

Note. A task is used to complete a relatively independent business function. A task belongs to and only belongs to one job. [Source: GB/T 25000.23-2019, 4.12, modified]

3.4 Fine-tuning The process of continuing training a large model using specialized domain data to improve the prediction accuracy of a machine learning model. Note

1.Specialized domain data are generally production data or synthetic data for specific scenarios. Note

2.Commonly used fine-tuning methods include prompt word fine-tuning, full parameter fine-tuning, and parameter efficient fine-tuning.