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

GB/T 46882-2025

**Test methods for access network equipment - Interoperability
of XG-PON and XGS-PON**

接入网设备测试方法 10Gbit/s非对称/对称无源光网络（XG-PON/XGS-PON）互
通性

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Foreword

This document is in accordance with GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting is scheduled.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the Ministry of Industry and Information Technology of the People's Republic of China. This document is under the jurisdiction of the National Telecommunications Standardization Technical Committee (SAC/TC485). This document was drafted by: China Academy of Information and Communications Technology, ZTE Corporation, and China Information and Communications Technology Group Co., Ltd. Nokia Shanghai Bell Co., Ltd., Sichuan Tianyi Kanghe Communication Co., Ltd., and Huawei Technologies Co., Ltd. The main drafters of this document are. Zhang Chen, Liu Qian, Chen Jie, Jiang Yi, Luo Wenyi, Geng Dan, Bai Yunbo, and Liu Dekun. Access network equipment testing methods 10Gbit/s asymmetric/ Symmetrical Passive Optical Network (XG-PON/XGS-PON) interoperability

1 Scope

GB/T 46882-2025 is the Chinese national standard covering proving that a 10-gigabit passive optical line terminal and the modems of a different vendor actually work together -

the ranging and activation, the bandwidth allocation, the encryption and the management, exercised case by case. Interoperability is what lets an operator buy the two ends from different suppliers. First edition, 20,500 words. It was issued on 31 December 2025 and has been in force since 1 July 2026, as a first edition. The document is under the responsibility of the Ministry of Industry and Information Technology. This page is published from the official record of the 2025 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document describes the PLOAM system of a 10Gbit/s asymmetric/symmetric passive optical network (hereinafter referred to as "XG-PON/XGS-PON"). Interoperability testing methods include messaging, OMCI protocol and service configuration, performance management, fault management and security management. This document applies to the research, development, production, and testing of XG-PON/XGS-PON equipment used in telecommunications, broadcasting, and vertical industries.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 44816.1-2024 Technical requirements for interoperability of access network systems - Part 1.10Gbit/s Passive Optical Network (XG-PON)

GB/T 44816.2-2024 Technical requirements for interoperability of access network systems - Part 2.10Gbit/s Symmetric Passive Optical Network (XGS- PON) YD/T 2756 Test Methods for Access Network Equipment. 10Gbit/s Passive Optical Network (XG-PON) YD/T 2793 Access Network Technical Requirements. ONU Management and Control Interface (OMCI) YD/T 3916 Test Methods for Access Network Equipment. 10Gbit/s Symmetric Passive Optical Network (XGS-PON)

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4.Abbreviations The following abbreviations apply to this document. BBF. Broadband Forum HGU. Home Gateway Unit