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

GB/T 13993.1-2016

Replacing GB/T 13993.1-2004

Optical fibre cables for telecommunication - Part 1: General

通信光缆 第1部分：总则

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Foreword

GB/T 13993 "Communication cable" includes. - Part 1. General; - Part 2. Outdoor cable for core network; - Part 3. Indoor cabling for integrated wiring; - Part 4. Outdoor cables for access networks; This part is part 1 of GB/T 13993. This part is drafted in accordance with the rules given in GB/T 1.1-2009. This part of the replacement GB/T 13993.1-2004 "Communication cable series Part 1. General", and GB/T 13993.1-2004 phase The main technical changes are as follows:

- standard name from the "communication cable series" to "communication cable"; (GB/T 15972 and GB/T 7424.2) and optical fiber classification standard (GB/T 9771) And GB/T 12357) and its revised test methods (see 2,3,3,5;.2004 version 2,3,3,5);
- Increased measurement technology to the length of the manufacturing constraints (see 4.2;.2004 version 4.2); - increased selection of single-mode fiber and multimode fiber (see 4.3;.2004 version 4.3);
- Increased environmental performance requirements for fiber optic cable materials (see 4.4.2);
- Increased performance requirements for fiber optic cable components (see 4.5);
- Remove the mechanical performance requirements of the anti-cutting items, increased tension under the bending, into a circle, jacket pull out, can be installed, has become a cable Fiber and fiber ribbon stripping and other items (see 4.6.2;.2004 version 4.5.2);
- increase the environmental performance requirements of the hydrostatic pressure, resistance to ultraviolet and frozen items (see 4.7.2;.2004 version 4.6.2);
- Increased electrical performance requirements for optical cables (see 4.8); This part is made by the Ministry of Industry and Information Technology of the People's Republic of China. This part is headed by the National Communications Standardization Technical Committee (SAC/TC485). This part of the drafting unit. Datang Telecom Technology Industry Group, Chengdu Terry Communication Equipment Testing Co., Ltd., Jiangsu

Yongding Co., Ltd. Division, Jiangsu Hengtong Optoelectronics Co., Ltd., Jiangsu Tongding Optoelectronics Co., Ltd., Changfei Fiber Optic Cable Co., Ltd., Chengdu Datang cable has Limited company. The main drafters of this part. Wang Zemin, Song Zhituo, Shi Bin, Chen Xiaohong, Xue Mengchi, Liu Yuqin, Xiong Zhuang, Peng Yuan, Huang Kun. GB/T 13993.1 previous versions of the release. GB/T 13993.1-1992, GB/T 13993.1-2004. Communication cable Part 1. General

1 Scope

GB/T 13993.1-2016 is the Chinese national standard on optical fibre cables for telecommunication - part 1: general, in the field of telecommunications and audio-video engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 25 April 2016 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 November 2016. Classification: ICS 33.180.10, CCS M33. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This part of GB/T 13993 specifies the classification, requirements, test methods, inspection rules, installation and installation of communication cables (hereinafter referred to as optical cables) use. This section applies to all kinds of optical cables used in communication networks.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document.

GB/T 7424.2-2008 General specification for optical cables - Part 2. Basic test methods for optical cables (

IEC 60794-1-2..2003, MOD)

GB/T 9771 (all parts) single mode fiber for communication

GB/T 12357 (all parts) Multimode optical fiber for communication

GB/T 15972 (all parts) Specification for optical fiber test methods (

IEC 60793-1, MOD) Limits of Restricted Substances in Electrical and Electronic Products

GB/T YD/T 908 cable model naming method

3 Classification

3.1 GB/T 13993 According to YD/T 908 cable according to the provisions of the cable type, specifications and the preparation of models.

3.2 GB/T 13993 other parts should be required according to the requirements of the communication network cable type structure requirements and scope of application, the expected life And specifications series.

3.3 The type of single-mode fiber in the cable shall conform to the provisions of GB/T 9771, and the type of multimode fiber shall conform to the provisions of GB/T 12357.

4.1 Identification method

4.1.1 In order to facilitate the operation and use of the communication network, the other parts of GB/T 13993 shall specify the corresponding identification methods, including light Cable in the optical fiber, optical fiber unit identification chromatography (mode) and the identification of the cable itself.

4.1.2 identification of chromatography should adopt full chromatographic way.

4.2 Standard manufacturing length According to the requirements of the communication network and the cable manufacturing technology, measurement technology, storage capacity and construction technology possibilities, GB/T 13993 other Part of the corresponding cable should be the standard manufacturing length and its series.

4.3 Optical fiber characteristics According to the requirements of the communication network and the performance characteristics of various types of optical fiber and its actual level can be achieved, GB/T 13993 other parts should be specified