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

GB/T 13993.2-2014

Replacing GB/T 13993.2-2002

**Optical fibre cables for telecommunication - Part 2: Outdoor
optical fibre cables for core networks**

通信光缆 第2部分：核心网用室外光缆

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Foreword

GB/T 13993 "communication cable" includes the following sections.

- Part 2. Outdoor optical fiber core network;
- Part 3. Indoor optical fiber cabling;
- Part 4. Outdoor optical fiber access networks;

This section GB/T 13993 Part 2.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This Part replaces GB/T 13993.2-2002 "communications cable series Part 2. Outdoor optical fiber core network", and

GB/T 13993.2-2002 compared, in addition to editorial changes, the major technical changes are as follows.

- Standard name "communications cable series" to "communication cable";

--- Loose tube cable outer space filled with water blocking the whole ointment, should be applied to water-blocking material and a suitable water-blocking manner [see

3.2c), 2002 Edition 3.1c)];

--- Increased by flame retardant cable should test requirements [see 3.2g)];

Should adopt appropriate protective sheath when --- deleted the specific requirements of the cable sheath termite, rodent or termite requirements have changed

[See 3.2h), 2002 Edition 3.1i)];

--- Type involved in fiber optic cable, B1.1 class subdivided into B1.1a, B1.1b, B1.3 class subdivided into B1.3c, B1.3d, B4 fine fiber

Divided B4b, B4c, B4d, B4e, increasing the B5 class based on optical fiber and ITU-TG.656.2010 specified performance requirements (see

3.3.1 and 43, 2002 Version 3.2.1);

--- Count optical fiber cable commonly used to remove the 14 and 42, an increase of 108, 120 and 132 of the core (see 332, 2002 edition 3.2.2.);

1 Scope

GB/T 13993 provisions of this part of the outdoor fiber optic cable (hereinafter referred to as cable) structure type and suitability requirements, specifications, manufacturing standards

Length, fiber characteristics, mechanical properties, environmental performance and installation requirements.

This section applies to the core network with outdoor pipeline, buried, underwater and non-self-supporting aerial cable laying, in addition to structural and mechanical requirements

Outside, also applies to self-supporting aerial cable and air blown micro cable laying and other methods.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein

Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 7424.1-2003 total cable specification - Part 1. General

GB/T 9771 (all parts) with a single-mode optical fiber communication

GB/T 29233 pipeline, buried and non-self-supporting aerial installation with single-mode fiber optic outdoor communication YD/T 908 cable type designation Category 3

3.1 General

This section is divided cable types, sizes and preparation of models in accordance with YD/T 908's.

3.2 Type

Specific structure type cable should be specified in the product standard, the common structure type and scope of the following requirements.

a) is appropriate to separate the fiber optic cable configuration, the same batch of the same fiber optic cable should use the same design, the same material and the same manufacturing process optical fiber.

b) the center of the core should be adopted to strengthen the loose tube layer stranded structure or a central tube structure.

c) In addition to steel wire armored part, cable structure should have the water resistance performance of the whole cross-section, for cable in the gap should apply barrier

Water, water blocking material and a suitable way, which should be filled thixotropic compound loose tube and central tube.

d) cable should be used metal reinforcing member, but there are strong anti-electrical hazard requirements should be used to strengthen the non-metallic member.

e) the sheath should be resistant to aging black polyethylene jacket, in addition to outside the metal-free cable sheath also has a metal moisture barrier. but

15m ~ 60m deep water under laying cable should be sealed with a metal sheath.

f) When buried, underwater and some overhead laying, should be added to the outer sheath longitudinally corrugated steel tape armor or (and) steel wire armored polyethylene outer

Sleeve outer jacket layer.

g) fire-retardant fiber optic cable in the plastic sleeve should halogen plastic sleeve and the cable should be flame retardant by trial-related requirements.

h) when rodent or termite requirements should use appropriate protective sheath.