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**Code for design of communication engineering for fiber to the
home in residential districts and residential buildings**

住宅区和住宅建筑内光纤到户通信设施工程设计规范

(English Translation)

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1 General

1.0.1

In order to adapt to the development of urban construction and information communication, standardize the construction of fiber-to-the-home communication facilities in residential areas and residential buildings, realize resource sharing, avoid redundant construction, meet the needs of residents for communication services, and protect the legitimate rights and interests of residents, formulate this specification.

1.0.2

This specification applies to the engineering design of fiber-to-the-home communication facilities in newly-built residential areas and residential buildings, as well as the reconstruction and expansion engineering design of fiber-to-the-home communication facilities in existing residential areas and residential buildings.

1.0.3

The design of fiber-to-the-home communication facilities in residential areas and residential buildings must meet the requirements of equal access to multiple telecommunication service operators and users can freely choose telecommunication service operators.

1.0.4

In urban areas at the county level and above where the public telecommunication network has achieved optical fiber transmission, the communication facilities in newly built

residential areas and residential buildings should be constructed using optical fiber to the home.

1.0.5

The fiber-to-the-home access method should be adopted for newly-built residential areas and residential buildings in townships and rural areas below the county level.

1.0.6

The reconstruction and expansion of communication facilities in existing residential areas and residential buildings should adopt the fiber-to-the-home access method.

1.0.7

Communication facilities such as underground communication pipelines, distribution pipe networks, telecommunication rooms, and equipment rooms in newly-built residential areas and residential buildings must be constructed simultaneously with residential areas and residential buildings.

1.0.8

The engineering design of fiber-to-the-home communication facilities should select finalized products that meet the relevant current national technical standards. The equipment and main materials that have not been certified by the product quality supervision and inspection agency shall not be used in the project.

1.0.9

The engineering design of fiber-to-the-home communication facilities should implement the national technical and economic policies, and should be safe, reliable, advanced in technology, economically reasonable, overall beautiful, and easy to maintain and manage.

1.0.10

The design of fiber-to-the-home communication facilities shall not only comply with this specification, but also comply with the current relevant national standards.

2 Terms

2.0.1

Fiber to the home communication facilities in residential districts and residential buildings Refers to the underground communication pipelines and optical cable transfer boxes in the residential area within the red line of the building planning land, the pipe grooves and communication cables and wiring equipment in the residential buildings, the household distribution boxes in the households, the indoor pipelines and various communication business information sockets, The reserved equipment room, telecommunication room and other equipment installation space.

2.0.2 Underground communication duct

An underground laying channel for communication cables. It is composed of pipes, man (hand) holes, outdoor lead-in pipes and building lead-in pipes.

2.0.3 Wiring zone

In the residential area, according to the classification of residential buildings and the density of residents, the wiring area is composed of a single or several residential buildings.

2.0.4 Wiring pipeline network

The pipe network composed of shafts, pipe grooves, etc. in the building.

2.0.5 User access point access point for subscriber

The joint access of many telecom service operators is the engineering interface between telecom service operators and housing builders.

2.0.6 Cable cable

The general term for optical cable and electric cable.

2.0.7 Wiring optical cable

The optical cable connected from the user access point to the wiring equipment between the equipment, and between the equipment room and the man (hand) hole that communicates with the public communication pipeline.

2.0.8 Subscriber optical cable

The optical cable connected between the user access point distribution equipment and the home distribution box.

2.0.9 Indoor cable

The cable connecting the household distribution box to the indoor information socket.

2.0.10 Telecommunications room

It is a special space for placing wiring equipment and carrying out cable transfer in residential buildings.

2.0.11 Equipment room

Houses in the residential area that have the conditions for cable introduction and installation of communication wiring equipment.

2.0.12 Optical cable intersection box

Distribution equipment for connecting distribution optical cables and user optical cables in residential areas.

2.0.13 Wiring facilities

The general term for wiring cabinets (frames) and wiring boxes that connect communication cables in residential buildings.

2.0.14 Cabinet

Enclosed unit for installing wiring and network equipment, bringing in cables and terminating them. It consists of a frame, front and rear doors and side panels.

2.0.15 Household distribution box

A multifunctional wiring box installed in the household.

2.0.16 Terminal box terminal box

The box body of the terminal part of the indoor cable.

2.0.17 Information socket telecommunications outlet

Cable terminal modules supporting various communication services.

2.0.18 Tail fiber

A fiber optic cable assembly with a fiber optic connector plug on one end.

2.0.19 Optical fiber jumper

A fiber optic cable assembly with fiber optic patch cord plugs on both ends.

2.0.20 Adapter

A device that enables an optical connection between plugs and plugs.