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Interface Practices Subcommittee

AMERICAN NATIONAL STANDARD

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**SCTE Recommended Optical Fiber Cable Types for
Outside Plant Trunk and Distribution Applications**

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Document Types and Tags

Document Type: Specification

Document Tags:

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|---|------------------------------------|--|
| ☒ Test or Measurement | ☐ Checklist | ☐ Facility |
| ☐ Architecture or Framework | ☐ Metric | ☐ Access Network |
| ☐ Procedure, Process or Method | ☐ Cloud | ☐ Customer Premises |

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Note: Standards that are released multiple times in the same year use: a, b, c, etc. to indicate normative balloted updates and/or r1, r2, r3, etc. to indicate editorial changes to a released document after the year.

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1. Introduction

1.1. Executive Summary

Optical fiber cable is a key component of any service provider's passive optical network for telecommunications applications. Optical fiber cables comprise a significant portion of Hybrid Fiber Coax (HFC) networks in service today and current MSO fiber to the home (FTTH) networks. Ensuring the long-term reliability of these assets is a key performance component to the service providers and network operators.

Optical cables are designed to protect the optical fibers from a variety of harmful effects that could degrade the ultimate service life of the network. The effects of mechanical stresses, such as those experienced during installation, must be considered. Environmental effects that typically manifest themselves post-installation, such as temperature changes and chemical exposure, should also be evaluated. In order to properly evaluate and compare different cable designs a test regime of standard performance requirements should be considered by network operators. Well-designed and properly installed cables will protect the optical fibers and ensure proper operation for 20 years or more.

1.2. Scope

The purpose of this document is to provide guidance in selection of a suitable outside plant (OSP) optical cable with respect to different application environments. This document will provide references to The International Electrotechnical Commission (IEC) and International Telecommunication Union (ITU-T) to provide recommended standards and procedures for outside plant optical fiber and cable.

1.3. Benefits

This document provides cross-references to industry wide accepted global standards

1.4. Intended Audience

This document is intended for engineers, technicians, systems engineers

1.5. Areas for Further Investigation or to be Added in Future Versions

None at this time.