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IEEE Standard for Testing and Performance for All-Dielectric Self-Supporting (ADSS) Fiber Optic Cable for Use on Electric Utility Power Lines

IEEE Power and Energy Society

Developed by the
Power System Communications and Cybersecurity Committee

IEEE Std 1222™-2019
(Revision of IEEE Std 1222-2011)

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Approved 7 November 2019

IEEE-SA Standards Board

Abstract: The construction, mechanical, electrical, and optical performance, installation guidelines, acceptance criteria, test requirements, environmental considerations, and accessories for a nonmetallic, all-dielectric self-supporting (ADSS) fiber optic cable are covered by this standard. The ADSS cable is designed to be located primarily on overhead utility facilities.

Keywords: ADSS, all-dielectric self-supporting fiber optic cable, IEEE 1222™, overhead utility

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Introduction

This introduction is not part of IEEE Std 1222-2019, IEEE Standard for Testing and Performance for All-Dielectric Self-Supporting (ADSS) Fiber Optic Cable for Use on Electric Utility Power Lines.

This standard was first published in 2004 and updated in 2011. It is used worldwide to purchase and specify the performance of all-dielectric self-supporting (ADSS) cables. The original purpose of the standard was written to fill a need for standardization of terminology, performance, and test requirements for ADSS cables.

The original title was "IEEE Standard for All-Dielectric Self-Supporting Fiber Optic Cable." Over the years, the document has been used primarily as a test standard. To better reflect how the standard is presently used, the title previously changed to "IEEE Standard for Testing and Performance for All-Dielectric Self-Supporting Fiber Optic (ADSS) Cable for Use on Electric Utility Power Lines."

This revised standard documents the collective experience gained by the industry since the updated publication of the standard in 2011. Changes have been made in the following areas:

— Functional requirements

— Test requirements

Additional requirements related to ADSS Cable Hardware and Cable/Hardware Compatibility are addressed in IEEE Std 1591.2 [B10].[1]

[1] The numbers in brackets correspond to those of the bibliography in Annex F.

Contents

IEEE Standard for Testing and Performance for All-Dielectric Self-Supporting (ADSS) Fiber Optic Cable for Use on Electric Utility Power Lines

1. Overview

1.1 Scope

This standard covers the construction, mechanical, electrical, and optical performance, installation guidelines, acceptance criteria, test requirements, environmental considerations, and accessories for a nonmetallic, all-dielectric self-supporting (ADSS) fiber optic cable. The ADSS cable is designed to be located primarily on overhead utility facilities.

1.2 Purpose

This standard provides both construction and performance requirements for maintenance of the proper optical fiber integrity and optical transmission capabilities of ADSS cable.

This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address all of the safety issues associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2. Normative references

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