



ANSI/ICEA S-110-717-2019
Standard for Optical Fiber Drop Cable



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Third Edition**

Standard for Optical Fiber Drop Cable

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FOREWORD

(This Foreword is not part of this Standard.)

This Standard provides information on specifying optical fiber cables for use as drop cables in telecommunications applications.

The first edition of this Standard was approved by ICEA on June 5, 2003, and adopted by the Telecommunications Industry Association (TIA) as ANSI/TIA-472F000. No subsequent editions were adopted by TIA. The second edition was approved by ICEA on September 13, 2012. It was approved by The American National Standards Institute (ANSI) on March 13, 2013. This third edition was approved by ICEA on March 9, 2019. It was approved by The American National Standards Institute (ANSI) on September 26, 2019. The members of the ICEA Communications Cable Division Working Group who participated in the third edition of this Standard were:

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This issue replaces the previous issue of ICEA S-110-717-2013, *Standard for Optical Fiber Drop Cable*. Major changes in this revision include the following:

- Revision of the scope statement to better define the relationship of this drop cable standard to the FTTX and MDU applications of ICEA 730.
- Updated text on hazardous substances requirements.
- Addition of OM5 multimode fiber.
- Updated text and a new table explaining bend insensitive single-mode fiber.
- Addition of 200 micron fiber.
- Addition of descriptive text on easily-strippable semi-tight buffer.
- Jacket thickness specification has been changed from specified numbers to performance requirements.
- OIT is now required for polyolefin (PE or PP) jacket materials and LSZH jacket materials using polyolefin base resins.
- Some IEC test methods are stated as acceptable alternatives:
 - jacket print test
 - ribbon separability test.
- The temperature precision for testing has been changed to ± 3 °C from ± 2 .

- Partially bonded ribbons have been accommodated in the ribbon requirements.
- The cable impact test has been revised to harmonize with current ICEA and international practice.
- Tensile requirements for self-supporting cable are stated.

This Standard contains five annexes. Annex B is normative and becomes part of this Standard when required by the customer. Annexes A, C, D, and E are informative and are not considered part of this Standard.

ICEA Standards are adopted in the public interest and are designed to eliminate misunderstanding between the manufacturer and user and to assist the user in selecting and obtaining proper products for a particular need. The existence of an ICEA Standard does not in any respect preclude the manufacture or use of products not conforming to this Standard.

The user of this Standard is cautioned to observe any applicable health or safety regulations and rules relative to the manufacture and use of cable made in conformity with this Standard. This Standard hereafter assumes that only properly trained personnel using suitable equipment will manufacture, test, install, and/or perform maintenance on cables defined by this Standard.

Requests for interpretation of this ICEA Standard must be submitted in writing (hard copy or email) to the Secretary of the Insulated Cable Engineers Association. The mailing address of ICEA Headquarters and a *Contact* link are shown on the ICEA web site - www.icea.net. An official written interpretation will be provided.

TABLE of CONTENTS

<u>SECTION</u>	<u>PAGE</u>
Part 1: INTRODUCTION	1
1.1 Scope	1
1.2 General	4
1.3 Units	5
1.4 Definitions	5
1.5 References	7
1.6 Information to Be Supplied by the User.....	7
1.7 Modification of this Standard	7
1.8 Quality Assurance	7
1.9 Fire Resistance Codes	8
1.10 Safety Considerations	8
Part 2: OPTICAL FIBERS	10
2.1 General	10
2.2 Optical Fiber Classes	10
2.3 Optical Fiber Requirements.....	10
2.4 Optical Fiber Coating and Requirements	13
Part 3: OPTICAL FIBER CORE UNITS	15
3.1 General	15
3.2 Buffered Fiber.....	15
3.3 Loose Buffer Tubes	16
3.4 Optical Fiber Bundles	17
3.5 Optical Fiber Ribbons	17
Part 4: CABLE ASSEMBLY, FILLERS, STRENGTH MEMBERS, AND FIBER AND UNIT IDENTIFICATION	20
4.1 Cabling of Multi-Fiber Optical Fiber Cables.....	20
4.2 Identification of Fibers within a Unit.....	20
4.3 Identification of Units within a Cable	20
4.4 Identification of Conductors in Hybrid Drop Cable	20
4.5 Strength Members	21
4.6 Assembly of Cables.....	21
4.7 Filling and Flooding Materials.....	22

<u>SECTION</u>	<u>PAGE</u>
Part 5: COVERINGS	23
5.1 Binders.....	23
5.2 Core Wrap	23
5.3 Shielding, Armoring, or Other Metallic Coverings	23
5.4 Jackets.....	25
5.5 Other Coverings	26
5.6 Jacket Repairs	26
5.7 Ripcords.....	27
Part 6: MARKING AND PACKAGING	28
6.1 Identification and Date Marking	28
6.2 Optical Cable Identification and Other Markings.....	28
6.3 Length Marking	28
6.4 Cable Remarking.....	29
6.5 Packaging, Packing, and Package Marking.....	29
Part 7: TESTING AND TEST METHODS	31
7.1 Testing	31
7.2 Extent of Testing.....	31
7.3 Standard Test Conditions.....	31
7.4 Electrical Testing of Conductive Cable Components.....	32
7.5 Verification of Physical Construction, Color Code, and Identification.....	33
7.6 Environmental Stress Cracking Resistance Test.....	34
7.7 Jacket Shrinkage Test.....	34
7.8 Weathering Test	35
7.9 Verification of Cable Length and Marking Accuracy	35
7.10 Dimensions of Fibers, Buffered Fibers, and Buffer Tubes	36
7.11 Ribbon Dimensions	36
7.12 Ribbon Separability Test	37
7.13 Ribbon Twist Test.....	39
7.14 Ribbon Residual Twist Test.....	39
7.15 Buffer Strippability Test	40
7.16 Material Compatibility and Cable Aging Test	41
7.17 Cable Low and High Temperature Bend Test.....	42
7.18 Cable External Freezing Test.....	43
7.19 Cable Compound Flow (Drip) Test.....	43
7.20 Cable Temperature Cycling Test.....	44
7.21 Cable Cyclic Flexing Test.....	44
7.22 Cable Impact Test	45
7.23 Cable Cold Impact Test – Fire Resistant Cables Only.....	46

<u>SECTION</u>	<u>PAGE</u>
Part 7: TESTING AND TEST METHODS (continued)	
7.24 Cable Tensile Loading, Bending, and Fiber Strain Test	46
7.25 Cable Compressive Loading Test	48
7.26 Cable Twist Test	49
7.27 Cable Sheath Adherence Test	50
7.28 Cable Water Penetration Test	50
7.29 Cable Fire Resistance	51
7.30 Cable Lightning Damage Susceptibility Test (No Longer Recommended)	52
7.31 Shield Heating Test (Optional)	52
7.32 Ripcord Functional Test	52
7.33 Fiber Coupling	53
7.34 Oxidative Induction Time (OIT)	53
7.35 Jacket Thickness Measurements	54
7.36 Jacket Tensile Strength, Yield Strength, and Ultimate Elongation Testing	55
7.37 Buffer Tube Kink Test	55
 Part 8: FINISHED CABLE OPTICAL PERFORMANCE REQUIREMENTS	 56
8.1 Optical Performance	56
8.2 Attenuation Coefficient	58
8.3 Multimode Optical Bandwidth	58
8.4 Measurement of Optical Point Discontinuities	59
8.5 Cable Cut-off Wavelength Measurement (Single-mode Fibers)	60
 Part 9: REFERENCES	 61
ASTM	61
CSA	61
ICEA	61
IEC	62
IEEE	62
ISO	62
NFPA	62
NMX-J-237-1997-NYCE	62
TIA	62
TL	65

ANNEXES

ANNEX A	Ordering Information.....	66
ANNEX B	1625 nm Single-mode Cabled Fiber Performance Requirements	67
ANNEX C	Aerial Drop Cable Considerations	68
ANNEX D	Fusing Coordination Test	74

TABLES

Table 1-1	Cable Temperature Ranges	2
Table 2-1	Multimode Fiber Specifications.....	11
Table 2-2	Single-mode Fiber Specifications	12
Table 2-3	Fiber Bend Characteristics of G.657 Single-mode Fiber.....	13
Table 4-1	Individual Fiber, Unit, and Group Identification	21
Table 7-1	Maximum Dimensions of Optical Fiber Ribbons	37
Table 8-1	Attenuation Coefficient Requirements.....	56
Table 8-2	Multimode Bandwidth-Length Performance Requirements	57
Table 8-3	Point Discontinuity Acceptance Criteria	57
Table 8-4	Optical Attenuation Measurement Methods	58
Table 8-5	Multimode Optical Bandwidth Measurement Methods.....	59
Table B-1	Acceptance Criteria for L-Band Operation	67
Table D-1	Test Currents and Durations	74

FIGURES

Figure 7-1	Ribbon Dimensional Parameters.....	37
Figure 7-2	Ribbon Preparation.....	38
Figure 7-3	Ribbon Separation	38
Figure D-1	Fusing Coordination Test Configuration	75

**ICEA STANDARD
FOR
OPTICAL FIBER DROP CABLE**

PART 1

INTRODUCTION

1.1 Scope

1.1.1 General

This Standard covers optical fiber communications cables intended for use in outdoor and indoor/outdoor optical fiber drop applications. Materials, construction, and performance requirements are included in this Standard, together with applicable test procedures.

Optical fiber communications cables within the scope of flame-retardant compact and rugged drop cables for MDU and FTTX applications, as defined by ICEA S-115-730, may include specific types of drop cables. For these types of drop cables, the requirements of S-730 supersede the requirements of this Standard, except by agreement between manufacturer and user.

Refer to other published ICEA cable product standards for information for optical fiber cable requirements for other applications:

- S-104-696 for optical fiber communications cables intended for use in other combined indoor/outdoor applications
- S-87-640 for optical fiber communications cables intended for use in other outdoor applications
- S-83-596 for optical fiber communications cables intended only for indoor use
- S-112-718 for optical fiber cable for placement in sewers
- S-115-730 for optical fiber cable for multiple-dwelling units and other FTTX applications
- S-119-741 for fiber to the antenna cables
- S-120-742 for distributed antenna system cables
- S-122-744 for microduct cables

1.1.2 Application Space

Products covered by this Standard are intended for operation under conditions normally encountered in the last portion of all-optical networks. This space exists