



ANSI/ICEA S-118-746-2021

Standard for Category 8 Cable

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**ANSI/ICEA S-118-746-2021  
Standard for Category 8 Cable**

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## FOREWORD

ICEA standards are published in the public interest and are intended to promote product uniformity and quality throughout the industry. Existence of this publication does not in any respect preclude the manufacture or use of products not conforming to the 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 manufacture, testing, installation, and maintenance of cables defined by this standard will be performed only by properly trained personnel using suitable equipment and employing appropriate safety precautions.

Requests for interpretation of this ICEA standard must be submitted in writing to the Secretary of the Insulated Cable Engineers Association, Inc. The mailing address of ICEA Headquarters and a Contact link are provided on the ICEA web site - [www.icea.net](http://www.icea.net)

An official written interpretation shall be provided. Suggestions for improvements in this standard are welcomed by the association.

This standard was developed by the ICEA Communications Division Working Group - 746. It was approved by ICEA on TBD. The members of the ICEA Communications Cable Division, WG - 746, who participated in this project, were:

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## **Section 1 GENERAL**

### **1.1 PURPOSE**

The purpose of this standard is to establish generic technical requirements that may be referenced by individual telecommunications cable specifications covering products intended for normal indoor premises use in the wiring systems of communications users. The parameters covered provide material, construction, and performance requirements.

The standard does not cover all details of individual cable design; it cannot be used as a single document for procurement of product. This standard is intended for use in conjunction with an individual product specification that provides complete design details for the specific cable type and designates the applicable performance requirements. Such individual cable specifications may be prepared either by the user or the manufacturer. The specification designated for procurement is at the option of the user.

### **1.2 SCOPE**

This standard covers mechanical, electrical and flammability requirements for thermoplastic insulated and jacketed, copper conductor for use as horizontal cables or patch cordage. Depending upon the application and system requirements, this standard provides choices for materials and flammability ratings.

This standard covers the minimum performance requirements for four pair cables, with transmission characteristics specified up to 2000 Mega Hertz for Category 8 cables.

These Category cables are intended for; voice, text, data, video, image transmission, and low voltage power supply (POE & POE+). The cables are categorized by electrical transmission characteristics based on existing system requirements and projected application needs determined by IEEE 802.3.

The cables included are intended to conform to the cabling system architecture and design, as specified in ANSI/TIA-568-2-D. Applicable definitions, test methods, and performance requirements are included.

For additional categories, see companion ICEA standards ANSI/ICEA S-90-661 for categories 3, 5, and 5e and ANSI/ICEA S-116-732 for categories 6 and 6A.

The performance requirements contained in this document are for cables as manufactured. Link and channel requirements are beyond the scope of this document.

### **1.3 REFERENCED STANDARDS**

All documents referenced herein are listed in Appendix A.

### **1.4 DEFINITION OF CABLE TYPES**

Horizontal cables typically use solid conductors are normally installed in that portion of the telecommunications cabling system between the telecommunications closet and the work area telecommunications outlet.

Patch cordage is a length of cable used in the manufacture of patch cords where it is combined with connectors on one or both ends to join telecommunication circuits/links at the cross-connect and to connect workstations to the wall outlet. The conductors may be solid or stranded.