ANSI/ICEA S-107-704-2021
STANDARD FOR BROADBAND BURIED SERVICE WIRE, FILLED, POLYOLEFIN INSULATED, COPPER CONDUCTOR

Approved as an American National Standard
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Approved 3/2/2021 by

INSULATED CABLE ENGINEERS ASSOCIATION, Inc.
www.icea.net

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American National Standards Institute

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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.

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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 - 704. It was approved by ICEA on 3/2/2021. The members of the ICEA Communications Cable Division, WG - 704, 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 wire specifications covering products intended to connect the broadband outside plant to the individual customer premises. The parameters covered provide material, construction, and performance requirements.

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

The manufacturer and user of these wires should consider the selection and availability of appropriate hardware in the installation of these products

1.2 SCOPE

This Standard covers material, mechanical and electrical requirements for Broadband Buried Service Wire (BB-BSW) of ≤ 6 pair, intended for use principally in extending a circuit from a broadband cable terminal to a subscriber's network interface device (NID).

1.3 ACRONYMS, ABBREVIATIONS AND SYMBOLS

%	Percent
α	Attenuation
AC	alternating current
ACRF	Attenuation-to-Crosstalk Ratio, Far-End (formerly ELFEXT)
ANSI	American National Standards Institute
ASQC	American Society for Quality Control
ASTM	American Society for Testing and Materials
ATG	absorbent thixotropic gel
AWG	American Wire Gauge
BB-BSW	broadband buried service wire
CAS	Chemical Abstract Service
Cg	ground component of mutual capacitance
CM	UL Listing designation for General Purpose Communication Cable
CMG	UL Listing designation for General Purpose Communication Cable
CMP	UL Listing designation for Plenum Communication Cable
CMR	UL Listing designation for Riser Communication Cable
CMX	UL Listing designation for Limited Use Communication Cable
CUPP	capacitance unbalance pair to pair
dB	decibel
DC	Direct Current