



***Society of Cable
Telecommunications
Engineers***

**ENGINEERING COMMITTEE
Interface Practices Subcommittee**

AMERICAN NATIONAL STANDARD

ANSI/SCTE 177 2012

**Specification for Braided 75 Ω , Mini-Series Quad
Shield Coaxial Cable for CMTS and SDI cables**

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1.0 INTRODUCTION

This specification applies to flexible 75-ohm, braided, mini-series quad shield coaxial cable for use in CMTS and SDI applications.

When reference to other regulations or specifications is made, the user should adhere to the latest revision of the regulation or specification.

2.0 SCOPE

- 2.1 This specification defines the required performance with regards to electrical and mechanical properties of 75-ohm, braided, mini-series quad shield coaxial cable for CMTS and SDI applications.
- 2.2 These cables are used in the transmission of RF signals and power for voice, data and video applications.
- 2.3 Cables meeting the requirements within this standard are for use with interior applications. Use within exterior applications is outside the scope and requirements of this document.

3.0 CENTER CONDUCTOR

- 3.1 Center conductor dimension shall be $0.0226 \pm 1\%$ inches ($0.574 \text{ mm} \pm 1\%$).
- 3.2 Solid copper or copper clad steel shall be specified.
- 3.3 Minimum break strength (MBS) of the solid copper center conductor shall be determined by multiplying the minimum cross sectional area by 32,000 psi (221 MPa). MBS for 0.0226" solid copper conductor equals 13lbf (57 N).
- 3.4 Minimum break strength (MBS) of the copper clad steel center conductor shall be determined by multiplying the minimum cross sectional area by 95,000 psi (655 MPa). MBS for 0.0226" copper clad steel conductor equals 38lbf (169 N).
- 3.5 The center conductor electrical conductivity shall be 40 percent IACS minimum.
- 3.6 Maximum DC resistance shall be measured per ANSI/SCTE 44, and shall be 51.0 ohms/1000 ft (167 ohms/km).