

Society of Cable Telecommunications Engineers

ENGINEERING COMMITTEE Interface Practices Subcommittee

AMERICAN NATIONAL STANDARD

ANSI/SCTE 70 2007

Insulation Resistance Megohmmeter Method

NOTICE

The Society of Cable Telecommunications Engineers (SCTE) Standards are intended to serve the public interest by providing specifications, test methods and procedures that promote uniformity of product, interchangeability and ultimately the long term reliability of broadband communications facilities. These documents shall not in any way preclude any member or nonmember of SCTE from manufacturing or selling products not conforming to such documents, nor shall the existence of such standards preclude their voluntary use by those other than SCTE members, whether used domestically or internationally.

SCTE assumes no obligations or liability whatsoever to any party who may adopt the Standards. Such adopting party assumes all risks associated with adoption of these Standards or Recommended Practices, and accepts full responsibility for any damage and/or claims arising from the adoption of such Standards or Recommended Practices.

Attention is called to the possibility that implementation of this standard may require use of subject matter covered by patent rights. By publication of this standard, no position is taken with respect to the existence or validity of any patent rights in connection therewith. SCTE shall not be responsible for identifying patents for which a license may be required or for conducting inquires into the legal validity or scope of those patents that are brought to its attention.

Patent holders who believe that they hold patents which are essential to the implementation of this standard have been requested to provide information about those patents and any related licensing terms and conditions. Any such declarations made before or after publication of this document are available on the SCTE web site at <u>http://www.scte.org</u>.

All Rights Reserved

© Society of Cable Telecommunications Engineers, Inc. 2007

140 Philips Road

Exton, PA 19341

This is a preview of "ANSI/SCTE 70 2007". Click here to purchase the full version from the ANSI store.

TABLE OF CONTENTS

1.0	SCOPE AND DEFINITIONS	.1
2.0	EQUIPMENT	.1
3.0	SET-UP	.1
4.0	PROCEDURE	.1
5.0	CALCULATIONS	.3
6.0	REPORT THE FOLLOWING	.4
7.0	ACCURACY	4

1.0 SCOPE AND DEFINITIONS

This method is intended for use in determining the Insulation Resistance of insulated dielectric for coaxial cables by the megohimmeter method.

2.0 EQUIPMENT

- 2.1 Megohmmeter, Quadtech 1865 or equivalent
- 2.2 Leads as required

3.0 SET-UP

Follow all calibration requirements recommended by the manufacturers of the Megohmmeter being used.

Caution: Leads are energized during Zero Calibration

4.0 **PROCEDURE**

- 4.1 Specimen Preparation:
 - 4.1.1 Precondition specimen between 59°F (15° C) and 95°F (35°C) for 24 hours.
 - 4.1.2 Coaxial cables with jackets should have 3 to 4 inches (75 to 100 mm) of jacket material removed from each end of cable specimen. One end of cable specimen should then have approximately 1 inch (25 mm) of shield and dielectric material removed exposing the center conductor. The center conductor should then be cleaned of any remaining dielectric material or precoat. The shield (and braid wires on braided cables) should then be peeled back to allow connection with the test lead alligator clip. The opposite end of the cable specimen should be examined for possible touching of shield to center conductor. Peeling back the shield on this end may be necessary to prevent arcing see figure 1.