

Society of Cable Telecommunications Engineers

ENGINEERING COMMITTEE Interface Practices Subcommittee

AMERICAN NATIONAL STANDARD

ANSI/SCTE 151 2015

Mechanical, Electrical, and Environmental **Requirements for RF Traps and Filters**

NOTICE

The Society of Cable Telecommunications Engineers (SCTE) Standards and Recommended Practices (hereafter called documents) are intended to serve the public interest by providing specifications, test methods and procedures that promote uniformity of product, interchangeability, best practices and ultimately the long term reliability of broadband communications facilities. These documents shall not in any way preclude any member or non-member 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 documents. Such adopting party assumes all risks associated with adoption of these documents, and accepts full responsibility for any damage and/or claims arising from the adoption of such Standards.

Attention is called to the possibility that implementation of this document may require the use of subject matter covered by patent rights. By publication of this document, 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 inquiries 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 document 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. 2015 140 Philips Road Exton, PA 19341

TABLE OF CONTENTS

1.0	SCOPE	1
2.0	NORMATIVE REFERENCES	1
3.0	COMPLIANCE NOTATION	2
4.0	DEFINITIONS AND ACRONYMS	3
5.0	MECHANICAL	4
6.0	ELECTRICAL	4
7.0	ENVIRONMENTAL	6
8.0	DIMENSIONS	7

LIST OF FIGURES

FIGURE 1 – DEVICE PORT AND INSTALLATION TOOL DIMENSIONS 7

1.0 SCOPE

The purpose of this specification is to provide the mechanical, electrical and environmental requirements for broadband radio frequency (RF) Trap and Filter devices whose primary purpose is to provide a fixed attenuation of RF signal(s) at user defined frequencies while preserving adjacent topology.

This scope is limited to 75-ohm devices with F connectors. This specification is not intended to limit or restrict any manufacturer's innovation and improvement.

2.0 NORMATIVE REFERENCES

The following documents contain provisions, which, through reference in this text, constitute provisions of the standard. At the time of Subcommittee approval, the editions indicated were valid. All standards are subject to revision; and while parties to any agreement based on this standard are encouraged to investigate the possibility of applying the most recent editions of the documents listed below, they are reminded that newer editions of those documents may not be compatible with the referenced version.

2.1 SCTE References

ANSI/SCTE 01 2006, Specification for "F" Port, Female, Outdoor

ANSI/SCTE 45 2012, Test Method for Group Delay

ANSI/SCTE 48-1 2007, Test Method for Measuring Shielding Effectiveness of Passive and Actives Devices Using a GTEM Cell

ANSI/SCTE 60 2010, Test Method for Interface Moisture Migration Double Ended

ANSI/SCTE 81 2012, Surge Withstand Test Procedure

ANSI/SCTE 98 2014, Test Method for Withstand Tightening Torque – "F" Male

ANSI/SCTE 143 2013, Test Method for Salt Spray

ANSI/SCTE 144 2012, Test Procedure for Measuring Transmission and Reflection

ANSI/SCTE 149 2013, Test Method for Withstand Tightening Torque – "F" Female

2.2 Standards from other Organizations

IEEE C 62.41-1991, IEEE Recommended Practice for Surge Voltage in Low-Voltage AC Power Circuits