

ANSI/CEA Standard

Antenna Control Interface

ANSI/CEA-909-B

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(Formulated under the cognizance of the CEA **R4 Video Systems Committee**.)

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FOREWORD

This standard, CEA-909-B, was developed under the auspices of the Consumer Electronics Association (CEA) R4 Video Systems Committee.

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Antenna Control Interface

1 Scope

CEA-909-B describes an antenna control subsystem for receiving terrestrial transmissions. The primary use is to facilitate television reception. The receiver controls the antenna apparatus to optimize the signal automatically for best reception by adjusting its configuration.

CEA-909-B allows any receiver to operate with any antenna, regardless of manufacturer. CEA-909-B defines the data algorithms used, connection standards, and other requirements. The antenna configuration is neither specified nor implied, leaving certain antenna design considerations to the manufacturer.

2 References

2.1 Normative References

The following standards contain provisions that, through reference in this text, constitute normative provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed in Section 2.1.1.

2.1.1 Normative Reference List

1. CEA-542-B, Cable Television Channel Identification Plan, July, 2003
2. FCC Channelization Rules, 47 CFR 73.603 Numerical designation of channel numbers
3. TIA-968-A, Telecommunications Telephone Terminal Equipment, Technical Requirements for Connection of Terminal Equipment to the Telephone Network, February, 2005

2.1.2 Normative Reference Acquisition

CEA & TIA Standards:

- Global Engineering Documents, World Headquarters, 15 Inverness Way East, Englewood, CO USA 80112-5776; Phone 800-854-7179; Fax 303-397-2740; Internet <http://global.ihs.com>; Email global@ihs.com

2.2 Informative References

The following standards contain provisions that, through reference in this text, constitute informative provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed in Section 2.2.1.

2.2.1 Informative Reference List

4. ANSI/SCTE 02 2006 "Specifications, F Connector, Female, Indoor,"

2.2.2 Informative Reference Acquisition

ANSI/SCTE Standards:

- Society of Cable Television Telecommunications Engineers (SCTE), 140 Philips Road, Exton PA 19341; Phone 800-542-5040; Fax 610-363-5898; Internet <http://www.scte.org>; Email info@scte.org

3 Introduction

The antenna control interface specified in this document enables the receiving system, which includes both the antenna and the DTV receiver, to provide improved digital television reception. CEA-909-B describes a means to optimize a suitably designed receiving antenna's directional pattern, gain, polarization, and tuning for each channel. Control of the antenna parameters is via a serial bitstream issued by the receiver over one of two defined interfaces: a separate dedicated connector or the antenna