

ANSI/CEA Standard

Application Profiles for CEA-775
Compliant DTVs

ANSI/CEA-849-B

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(Formulated under the cognizance of the CEA's **R4.8 DTV Interface Subcommittee**.)

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FOREWORD

Users of this standard should be aware that ongoing standardization work in the 1394 Trade Association may have a future impact on this standard. The CEA has stated its intention to harmonize its standards with those developed within the 1394 Trade Association, and likewise the TA has indicated its willingness to coordinate standards development with CEA.

This standard was developed under the auspices of the CEA R4.8 DTV Interface Subcommittee.

1. INTRODUCTION

The CEA-775-C *DTV 1394 Interface Specification* [6] standardizes the IEEE 1394 High Performance Serial Bus [16] interface and the IEEE 1394A-2000 IEEE 1394A-2000, Standard for a High Performance Serial Bus- Amendment [27] interface for use with a Digital Television (DTV) receiver. CEA-775-C does not state compliance requirements for the types of digital transport methods or content encoding that must be supported. This standard specifies profiles for various applications of the CEA-775-C standard. The application areas covered here include digital streams compliant with ATSC terrestrial broadcast, direct-broadcast satellite (DBS), US cable, and standard definition Digital Video (DV) camcorders.

This standard defines formats for several application area profiles. Clearly, the four areas, terrestrial broadcast, cable, satellite, and camcorders, do not represent all possible sources that may deliver signals over the 1394 interface. DTV designers should be aware that additional formats are being standardized for other sources within various other forums.

Important note: However, the goal of the various standards activities is to limit the number of profile options, such that a DTV can be reasonably made to be compatible with all (or nearly all) types of source devices. DTV owners prefer that their products maintain compatibility with newly developed source devices. The proliferation of formats should be limited to avoid interoperability problems with DTVs already in customer's hands. The expectation is that MPEG-2 based standards for transport, service structure, and video compression continue to be supported. For the North American market, ATSC-based Service Information and Dolby AC-3 audio are applicable. This family of standards is identified by the shaded cells in the Table 4 summary on page 16.

2. GENERAL

2.1 Scope

This standard defines transport and content coding formats a compliant DTV shall support in order to inter-operate with various digital audio and video sources. A DTV compliant with this standard shall also comply with the requirements of CEA-775-C [6].

2.2 Normative References

The following standards contain provisions that, through reference in this text, constitute normative provisions of the appropriate sections 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 for the most recent editions of the standards listed in Sec. 2.2.1.

2.2.1 Normative Reference List

1. ATSC A/53, Part 3:2007, ATSC Digital Television Standard Part 3 – Service Multiplex and Transport Subsystem Characteristics, January 3, 2007.
2. ATSC A/53, Part 4:2007, ATSC Digital Television Standard Part 4 – MPEG-2 Video System Characteristics, January 3, 2007.