AS 4599.1:2015

Australian STANDARD

Digital television—Terrestrial broadcasting

Part 1: Characteristics of digital terrestrial television transmissions

STANDARDS Australia

This Australian Standard® was prepared by Committee CT-002, Broadcasting and Related Services. It was approved on behalf of the Council of Standards Australia on 12 June 2015. This Standard was published on 30 June 2015.

The following are represented on Committee CT-002:

- Australian Broadcasting Corporation
- Australian Communications and Media Authority
- Australian Digital and Telecommunications Association
- Australian Industry Group
- Australian Information Industry Association
- Australian Subscription Television and Radio Association
- CHOICE
- Commercial Radio Australia
- Community Broadcasting Association of Australia
- Consumer Electronics Suppliers Association
- Department of Communications
- Free TV Australia
- Media Access Australia
- Ministry of Business, Innovation and Employment, New Zealand
- Telecommunications Users Association of New Zealand

This Standard was issued in draft form for comment as DR2 AS 4599.1.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian Standard®

Digital television—Terrestrial broadcasting

Part 1: Characteristics of digital terrestrial television transmissions

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee CT-002, Broadcasting and Related Services, to supersede AS 4599.1—2011. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

This Standard was prepared in conjunction with the ACMA and the television broadcasting industry to ensure consistency of terrestrial broadcasting transmissions, and to enable the design of digital transmission equipment and television receivers. The ACMA has published a set of digital terrestrial television planning parameters in the *Technical Planning Guidelines* and *The Digital Terrestrial Television Broadcasting Planning Handbook*, which references this Standard.

The objective of this Standard is to provide television transmission equipment, and receiver manufacturers and broadcasters, with the technical specification for the Australian digital terrestrial television transmission system, in order to achieve interoperability and optimization of transmission choices for digital terrestrial television broadcasting (DTTB) and reception. This Standard reflects the technical specifications post-analog television and the operation of digital terrestrial television services in the bands 174 MHz–230 MHz and 526 MHz–694 MHz.

This Standard is part of a group of terrestrial television Standards, including AS 4933, *Digital television—Requirements for receivers—VHF/UHF DVB-T television broadcasts including ancillary services*, AS/NZS 1367, *Coaxial cable and optical fibre systems for the RF distribution of digital television, radio and in-house analog television signals in single and multiple dwelling installations* and AS 1417, *Receiving antennas for radio and television in the VHF and UHF broadcast bands*, which are related to this Standard.

The objective of this revision is to update the reference documents and bring the Standard into line with current practice.

The Australian implementation of the DVB-T system uses the technical content of relevant ETSI Standards.

The development of standards within the EBU DVB project is a dynamic process. Reviews of existing and development of new ETSI standards are underway at DVB. End users of this Standard are encouraged to keep up to date with DVB reviews by contacting the DVB Project Office directly at the following address:

DVB Project Office
C/- European Broadcasting Union
17A Ancienne Route
CH-1218 Grand-Saconnex/Geneva
Switzerland

Phone: +41 22 717 27 19
Facsimile: +41 22 717 27 27
Email: dvb@dvb.org

They can also be contacted by visiting the DVB website (http://www.dvb.org).

In previous versions of this Standard, to maintain consistency with the referenced documents, a comma was frequently used in this Standard when referring to a decimal marker, particularly in tables. This is no longer the case in this version and a decimal marker is now used.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is only for information and guidance.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for digital terrestrial television transmissions in Australia, including the video, audio, data and closed captions coding, the characteristics of the transport stream, the channel coding, and the modulation system to be used.

This document includes consideration of revisions to standards related to terrestrial television broadcasting. In this update of AS 4599.1, references are included for application programming interfaces.

1.2 APPLICABLE STANDARDS

This Standard shall be read in conjunction with the referenced international standards detailed in Clause 1.4.[1]

Digital terrestrial television broadcasting in Australia is based on the DVB specifications published in the ETSI Standards referenced in this Standard.

This Standard is set out in Sections, which deal with specific topics in ETSI Standards. These are summarized below:

Addressed Standards		
Section	**Title**	**ETSI Standard**
2	Coding	ETSI TS 101 154 V 1.11.1 (2012/11) Digital Video Broadcasting (DVB); Specification for the use of Video and Audio Coding in Broadcasting Applications based on the MPEG-2 Transport Stream
3	Teletext/ subtitles	ETSI EN 300 472 V1.3.1 (2003-05) Digital Video Broadcasting (DVB); Specification for conveying ITU-R System B Teletext in DVB bitstreams
		ETSI EN 300 706 V1.2.1 (2003-04) Enhanced Teletext specification
		ETSI EN 301 775 V 1.2.1 (2003-05) Digital Video Broadcasting (DVB); Standard for the carriage of Vertical Blanking Information (VBI) data in DVB bitstreams
		ETSI EN 300 708 V1.2.1 (2003) Television systems; Data transmission within Teletext

1 This Standard is referenced by ACMA in the Broadcasting Services (Technical Planning) Guidelines 2007.

