

Australian Standard™

**Digital television—Terrestrial
broadcasting**

**Part 1: Characteristics of digital
terrestrial television transmissions**

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 8 March 2005. This Standard was published on 29 April 2005.

The following are represented on Committee CT-002:

Australian Broadcasting Authority
Australian Broadcasting Corporation
Australian Caption Centre
Australian Chamber of Commerce and Industry
Australian Consumers Association
Australian Electrical and Electronic Manufacturers Association
Australian Information Industry Association
Australian Subscription Television and Radio Association
Broadcast Australia
Commercial Radio Australia
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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. 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 Australian Broadcasting Authority and the television broadcasting industry to ensure consistency of terrestrial broadcasting transmissions and to enable the design of receivers for that service. The Australian Broadcasting Authority has published a set of digital terrestrial television planning parameters in the document *The Digital Terrestrial Television Broadcasting Planning Handbook* which references this Standard.

The objective of this Standard is to provide television receiver manufacturers and broadcasters with the technical specification for the Australian digital terrestrial television transmission system in order to achieve interoperability in digital terrestrial television broadcasting (DTTB) transmission and reception. Standards Australia publishes AS 4933.1 *Digital television—Requirements for receivers, Part 1: VHF/UHF DVB-T television broadcast* which is derived from this Standard.

The Australian DTTB system uses the technical content of relevant ETSI Standards.

Copies of these Standards may be purchased from the relevant Standards authorities.

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:

DVB Project Office

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 17A Ancienne Route
 CH-1218 Grand-Saconnex/Geneva
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or by visiting the DVB website:

<http://www.dvb.org>

To maintain consistency with the referenced documents, a comma is frequently used in this Standard when referring to a decimal marker, particularly in tables.

Within this Standard, organizations referred to by acronyms include—

- (a) Australian Broadcasting Authority ABA
- (b) Digital Video Broadcasting ProjectDVB
- (c) Digital Television GroupDTG
- (d) European Broadcasting Union.....EBU
- (e) European Telecommunications Standards InstituteETSI

- (f) Free TV Australia.....FTVA
- (g) International Electrotechnical Commission.....IEC
- (h) International Organization for StandardizationISO
- (i) International Telecommunication Union.....ITU
- (j) Society of Motion Picture and Television EngineersSMPTE

Any international Standard references should be replaced by an equivalent Australian Standard when one is available. The availability of equivalent Australian Standards can be determined either from the Standards Australia catalogue or from the Standards Australia website (www.standards.com.au), **select** on-line shopping/search for equivalent Standards.

The following Australian/New Zealand Standards referenced in this Standard have been adopted from ISO/IEC Standards.

AS/NZS	ISO/IEC
13818.1:2002	13818-1:2000
13818.2:2002	13818-2:2000
13818.3:1999	13818-3:1998
13818.4:2002	13818-4:1998
13818.5:1999	13818-5:1997
13818.6:1999	13818-6:1998
13818.9:1999	13818-9:1996
13818.10:2002	13818-10:1999

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STANDARDS AUSTRALIA

Australian Standard
Digital television—Terrestrial broadcasting

Part 1: Characteristics of digital terrestrial television transmissions

SECTION 1 SCOPE AND APPLICATION

1.1 SCOPE

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

1.2 APPLICATION

This Standard shall be read in conjunction with the referenced international standards detailed in Clause 1.3.

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:

References			
Section	Title	Number	ETSI Standard
2	Coding	[16]	ETSI TR 101 154 V 1.4.1 (2000-07) Digital Video Broadcasting (DVB); Implementation Guidelines for the use of MPEG-2 Systems, Video and Audio in Satellite, Cable and Terrestrial Broadcasting Applications
3	Teletext/ subtitles	[17]	ETSI EN 300 472 V1.3.1 (2003-01) Digital Video Broadcasting (DVB); Specification for Conveying ITU-R System B Teletext in DVB Bit-streams
		[18]	ETSI EN 301 775 V 1.1.1 (2000-11) Digital Video Broadcasting (DVB); Standard for the Carriage of Vertical Blanking Information (VBI) Data in DVB Bit-streams
		[19]	ETSI EN 300 743 V 1.2.1 (2002-10) Digital Video Broadcasting (DVB); Subtitling Systems
4	Service information	[20]	ETSI EN 300 468 V 1.5.1 (2003-05) Digital Video Broadcasting (DVB); Specification for Service Information (SI) in DVB Systems