

Australian Standard[®]

Digital radio—Terrestrial broadcasting

**Part 1: Characteristics of terrestrial
digital audio broadcasting (T-DAB+)
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 5 February 2009.

This Standard was published on 20 February 2009.

The following are represented on Committee CT-002:

- Australian Broadcasting Corporation
- Australian Chamber of Commerce and Industry
- Australian Communications and Media Authority
- Australian Consumers Association
- Australian Greenhouse Office, Dept of the Environment and Heritage
- 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
- Electronic Services Industry Association
- Free TV Australia
- Special Broadcasting Service

Additional Interests:

- Austereo
 - Australian Digital Testing
 - AV Link Australia
 - Broadcast Australia
 - Pure Australasia
 - Rohde & Schwarz (Australia)
 - S-Comm Technologies
-

This Standard was issued in draft form for comment as DR 08176.

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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First published as AS 4943.1—2009.

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Published by Standards Australia GPO Box 476, Sydney, NSW 2001, Australia

ISBN 0 7337 9031 3

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 Communications and Media Authority and the radio broadcasting industry to ensure consistency of terrestrial broadcasting transmissions and to facilitate the design of receivers for these services. The Australian Communications and Media Authority is in the process of publishing digital terrestrial radio planning parameters in the document *The Digital Terrestrial Radio Broadcasting Planning Guidelines*, which will reference this Standard.

The objective of this Standard is to provide radio receiver manufacturers and broadcasters with the technical specification for the Australian digital terrestrial radio transmission system in order to achieve interoperability of terrestrial digital audio broadcasting (T-DAB) transmission and reception. Standards Australia publishes AS 4980.1, *Digital radio—Requirements for receivers*, Part 1: *DAB + broadcasts*, which is derived from this Standard.

The Australian DAB+ system utilizes 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 WorldDMB Technical Committee is a dynamic process. The Committee is engaged in reviewing existing ETSI Standards and developing new Standards. End-users of this Standard are encouraged to keep up-to-date with T-DAB reviews by contacting the WorldDMB Project Office directly at:

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or by visiting the WorldDMB website: <http://www.worlddab.org>

To maintain consistency with the referenced documents, a comma (instead of a full stop) is frequently used in this Standard as a decimal marker, particularly in tables.

The following acronyms are used in this Standard:

- | | | |
|-----|--|-------|
| (a) | Australian Communications and Media Authority | ACMA |
| (b) | Digital Audio Broadcasting Project | DAB |
| (c) | European Broadcasting Union | EBU |
| (d) | European Telecommunications Standards Institute | ETSI |
| (e) | International Electrotechnical Commission | IEC |
| (f) | International Organization for Standardization | ISO |
| (g) | International Telecommunication Union | ITU |
| (h) | Society of Motion Picture and Television Engineers | SMPTE |

Wherever an international Standard is referred to in this document and an equivalent Australian Standard exists, the Australian Standard takes precedence and should be referred to instead. 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 to find equivalent Standards.

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STANDARDS AUSTRALIA

Australian Standard
Digital radio—Terrestrial broadcasting

Part 1: Characteristics of terrestrial digital audio broadcasting (T-DAB+)
transmissions

1 SCOPE

This Standard specifies requirements for digital terrestrial radio transmissions (T-DAB+) in Australia, including the audio and data coding, the characteristics of the transport stream, the channel coding and the modulation system to be used.

2 DOCUMENT STRUCTURE

This Standard shall be read in conjunction with the referenced international Standards detailed in Clause 4.

Digital terrestrial radio broadcasting in Australia is based on the T-DAB specifications published in the ETSI Standards referenced in this Standard.

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

Addressed Standards

Clause	Title	ETSI Standard
5	Audio coding	ETSI TS 102 563 V1.1.1 (2007-02) Digital Audio Broadcasting (DAB); Transport of Advanced Audio Coding (AAC) audio
6	Transmission signal	ETSI EN 300 401 V1.4.1 (2006-06) Radio Broadcasting Systems; Digital Audio Broadcasting (DAB) to mobile, portable and fixed receivers
		ETSI TR 101 496-1 V1.1.1 (2000-11) Digital Audio Broadcasting (DAB); Guidelines and rules for implementation and operation; Part 1: System outline
		ETSI TR 101 496-2 V1.1.2 (2001-05) Digital Audio Broadcasting (DAB); Guidelines and rules for implementation and operation; Part 2: System features
		ETSI TR 101 496-3 V1.1.2 (2001-05) Digital Audio Broadcasting (DAB); guidelines and rules for implementation and operation; Part 3: Broadcast network
		ETSI TS 101 756 V1.3.1 (2006-02) Digital Audio Broadcasting (DAB); registered tables