

AS 4943.1:2021



STANDARDS  
Australia



# Digital radio — Terrestrial broadcasting

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



AS 4943.1:2021

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The following are represented on Committee CT-002:

- Australian Broadcasting Corporation
- Australian Communications and Media Authority
- Australian Digital and Telecommunications Industry 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
- Engineers Australia
- Free TV Australia
- Special Broadcasting Service

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# **Digital radio — Terrestrial broadcasting**

## **Part 1: Characteristics of terrestrial digital audio broadcasting (T-DAB+) 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 4943.1—2009.

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.

The objective of this Standard is to outline technical specifications for the Australian digital terrestrial radio transmission system in order to achieve interoperability of terrestrial digital audio broadcasting (DAB) transmission and reception for radio receiver manufacturers and broadcasters.

The major changes in this edition are as follows:

- (a) Update of relevant standards referenced in this document.
- (b) Reorganization of the document outline and feature inclusions.
- (c) Inclusion of new features.
- (d) Inclusion of hybrid radio.
- (e) Inclusion of receiver performance requirements.

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 term “informative” is used in Standards to define the application of the appendices to which they apply. An “informative” appendix is only for information and guidance.

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## Introduction

The Australian DAB+ system utilizes the technical content of relevant ETSI Standards.

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

The development of Standards within the WorldDAB 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 DAB reviews by contacting the WorldDAB Project Office directly at:

World DAB Project Office

55 New Oxford Street, London WC1A 1BS, United Kingdom

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

# 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 (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 and the features provided.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

NOTE Documents referenced for informative purposes are listed in the Bibliography.

ISO/TS 21219 (series), *Intelligent transport systems — Traffic and travel information (TTI) via transport protocol experts group, generation 2 (TPEG2)*

ETSI EN 300 401, *Radio Broadcasting Systems; Digital Audio Broadcasting (DAB) to mobile, portable and fixed receivers*

ETSI EN 301 234, *Digital Audio Broadcasting (DAB); Multimedia Object Transfer (MOT) protocol*

ETSI EN 302 077, *Transmitting equipment for the Digital Audio Broadcast (DAB) service; Harmonised Standard for access to radio spectrum*

ETSI ETS 300 797, *Digital Audio Broadcasting (DAB); Distribution interfaces; Service Transport Interface (STI)*

ETSI ETS 300 799, *Digital Audio Broadcasting (DAB); Distribution interfaces; Ensemble Transport Interface (ETI)*

ETSI TS 101 499, *Hybrid Digital Radio (DAB, DRM, RadioDNS); Slide Show; User Application Specification*

ETSI TS 101 756, *Digital Audio Broadcasting (DAB); Registered Tables*

ETSI TS 101 759, *Digital Audio Broadcasting (DAB); Data Broadcasting — Transparent Data Channel (TDC)*

ETSI TS 101 860, *Digital Audio Broadcasting (DAB); Distribution Interfaces; Service Transport Interface (STI); STI levels*

ETSI TS 102 367, *Digital Audio Broadcasting (DAB); Conditional access*

ETSI TS 102 371, *Digital Audio Broadcasting (DAB); Digital Radio Mondiale (DRM); Transportation and Binary Encoding Specification for Service and Programme Information (SPI)*

ETSI TS 102 563, *Digital Audio Broadcasting (DAB); DAB+ audio coding (MPEG HE-AACv2)*

ETSI TS 102 818, *Hybrid Digital Radio (DAB, DRM, RadioDNS); XML specification for Service and Programme Information (SPI)*

ETSI TS 102 980, *Digital Audio Broadcasting (DAB); Dynamic Label Plus (DL Plus); Application specification*

ETSI TS 103 177, *Digital Audio Broadcasting (DAB); Filecasting; User Application Specification*

ETSI TS 103 551, *Digital Audio Broadcasting (DAB); Transport of TPEG services*