

Australian/New Zealand Standard™

**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**



## **AS/NZS 1367:2016**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CT-002, Broadcasting and Related Services. It was approved on behalf of the Council of Standards Australia on 7 April 2016 and by the Standards New Zealand Approval Board on 20 April 2016.

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Australian Digital and Telecommunications Industry Association  
Australian Industry Group  
Australian Information Industry Association  
Australian Subscription Television and Radio Association  
CHOICE  
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# Australian/New Zealand Standard™

## **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**

Originated as AS 1367—1976.  
Jointly revised and redesignated as AS/NZS 1367:2000.  
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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CT-002, Broadcasting and Related Services, to supersede AS/NZS 1367:2007, *Coaxial cable and optical fibre systems for the RF distribution of analog and digital television and sound signals in single and multiple dwelling installations*.

The objective of this Standard is to provide specifications and requirements for the cabling of range of premises and buildings generally referred to in this Standard as dwellings, for distribution of analog and digital services such as free-to-air TV and radio, subscription or pay TV, or in-house video systems via radio frequency (RF) distribution. Such distributed services may include an interactive path.

A further objective of this Standard is to provide building owners, managers, architects, consultants, designers, manufacturers, installers, maintainers, service providers and users with requirements to meet user and service provider expectations, including performance criteria, for existing and foreseeable future services.

This Standard specifies the required equipment and system performance to meet safety, electromagnetic compatibility (EMC) and quality of service requirements of the end user or consumer.

This revision of AS/NZS 1367:2007 (including the renaming of the Standard) reflects the changes in free-to-air (FTA) terrestrial television broadcasts in Australia, including the cessation of analog PAL and transmission frequency reorganization (restack) to allow the implementation of mobile broadband services using the 'digital dividend'. Other advances in DVB-S, DVB-S2 and DVB-C equipment and systems are also included. The main additions and revisions are as follows:

- (a) Transmission medium and major equipment type additions:
  - (i) DVB-S2.
  - (ii) DVB-T2 (NZ).
- (b) Specification and text revisions:
  - (i) Removal of off-air reception above ch51 (694 MHz).
  - (ii) Filter requirements for LTE (mobile broadband) interference.
  - (iii) T-DAB advance to DAB+ (available in mainland capital city digital radio services).
  - (iv) Renaming of High-grade to Grade 1 and Basic-grade to Grade 2.
  - (v) Safety requirements revisions.
  - (vi) Revision of diagrams, drawings and schematics.
  - (vii) Revision of Appendix C—F-type connector advisory modifications and recommendations.
  - (viii) Glossary revision.
  - (ix) Revision of symbols.

Statements expressed in mandatory terms in notes to figures and tables are deemed to be requirements of this Standard.

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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## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

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**Australian/New Zealand Standard****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**

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## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard specifies requirements and gives guidelines for the design, installation, electrical safety aspects, working performance and final commissioning and ongoing maintenance of a range of radio frequency (RF) distribution systems using passive and active components that will enable the high quality distribution of off-air and in-house television and radio signals in single and multiple unit dwellings (and where required, in other premises such as electrical goods retail stores, offices, etc.).

The end result of compliant systems and components is to make available RF-based broadcast and, if required, in-house signals carried by coaxial cable or by a combination of coaxial cable and fibre optic cable, to one or several outlets in a user's dwelling(s) and then onto a user's receiver where a tuner may reliably select and decode the desired signal with an adequate robustness by maintaining minimum distortion and interference of the received or input signals.

NOTE: As an important part of this Standard, the recommended signal levels and signal quality at the system outlets (e.g. wallplates) are given in Tables 9.2 (levels), 9.3 (level ratios) and 9.4 (C/N, MER and BER).

This Standard is relevant to systems capable of accommodating the distribution of RF signals depending on service requirements that may include interactive return path, over a frequency range that may cover from 5 MHz to 2150 MHz, including any required d.c. or low frequency power or signalling paths.

This Standard covers distribution systems that typically carry, as a minimum, the local digital television free-to-air (FTA) terrestrially broadcast services (see Note below), through to extensive systems that combine terrestrial and satellite IF (single or multiple) or satellite derived distribution. There may also be separately distributed subscription television services.

NOTE: For example, 'FreeView' provides free-to-air digital television and radio in New Zealand.

This Standard provides specifications for a range of passive and active devices including coaxial cable and connectors. The specification compliance of individual components performance and the interaction between them is seen as an essential primary requirement to allow a system design that has a predictable level and quality outcomes.

This Standard provides examples of system topology and although applying limitations, this Standard is not intended to restrict other potentially compliant system topologies.

In addition to a television receiver's RF input, the separate requirement of an interactive-capable connection for a receiver via a separate IP ethernet connection is not covered in this Standard. This Standard does not cover the interfacing and distribution of telephony, IP or other data services within communication systems.

NOTE: The scope is illustrated in Figure 1.1.