

Australian/New Zealand Standard™

**Power consumption of audio, video and
related equipment**

Part 1: Methods of measurement



AS/NZS 62087.1:2010

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee TE-001, Safety of Electronic Equipment. It was approved on behalf of the Council of Standards Australia on 19 January 2010 and on behalf of the Council of Standards New Zealand on 29 January 2010.
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The following are represented on Committee TE-001:

Australian Chamber of Commerce and Industry
Australian Communications and Media Authority
Australian Industry Group
Australian Information Industry Association
Australian Subscription Television and Radio Association
CHOICE
Certification Interests (New Zealand)
Consumer Electronics Association of New Zealand
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Australian/New Zealand Standard™

Power consumption of audio, video and related equipment

Part 1: Methods of measurement

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PREFACE

This Interim Standard was prepared by the Joint Standards Australia/Standards New Zealand Technical Committee TE-001, Safety of Electronic Equipment. This Standard will supersede AS/NZS 62087.1(Int.):2009.

The objective of this part of the Standard is to specify methods of measurement for the power consumption of television sets, video recording equipment, set-top boxes, audio equipment and multi-function equipment for consumer use. Part 2 of this Standard is intended to specify compliance values or limits relating to minimum energy performance standards requirements.

This Standard is identical with, and has been reproduced from IEC 62087, Ed.2.0 (2008) Final draft, *Methods of measurement for the power consumption of audio, video and related equipment*.

This Standard is structured to be suitable for reference in minimum performance standards legislation.

This series, when complete will consist of the following parts:

AS/NZS

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|-----------|--|
| 62087 | Power consumption of audio, video and related equipment |
| 62087.1 | Part 1: Methods of measurement (this Interim Standard) |
| 62087.2.1 | Part 2.1: Minimum energy performance standards (MEPS) requirements for digital television set-top boxes |
| 62087.2.2 | Part 2.2: Minimum energy performance standards (MEPS) and energy rating label requirements for television sets |

This series of Standards is published with the approval of the combined state and territory energy regulatory authorities in Australia and the New Zealand energy efficiency regulatory authority.

Statements expressed in mandatory terms in notes to figures are deemed to be requirements of this Interim Standard. 'Shall' indicates that a requirement is mandatory, while 'should' indicates a recommendation and good practice.

The terms 'normative' and 'informative' are 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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Foreword

This Standard differs from the previous edition in the following ways:

- Clause 2 is expanded to include references to video content to be used for On (average) mode measurements.
- Clause 3 is expanded to include additional definitions and abbreviations.
- Clause 4 is expanded to include On (average) mode for measuring average television power consumption.
- Clause 5 is modified to require reporting of the power supply voltage and frequency, and the ambient temperature. Clause 5 also includes updated requirements regarding the power measurement instrument.
- Sub-clause 6.7 is updated to indicate that it is maintained for backward compatibility.
- Clause 11 is new which describes the methods for measuring On (average) mode television power.
- Annex B is new which describes considerations for measuring On (average) mode television power.
- Annex C is new which describes the video signals to be used for measuring On (average) mode television power.
- References are made to the IEC drafts—

IEC 62087:200x video content_DVD_50, Video content for IEC 62087:200x on DVD™, 50 Hz vertical scan frequency

IEC 62087:200x video content_DVD_60, Video content for IEC 62087:200x on DVD™, 60 Hz vertical scan frequency

IEC 62087:200x video content_BD, Video content for IEC 62087:200x on Blu-ray™ Disc

Introduction

This standard specifies methods of measurement for the power consumption of television sets, video recording equipment, Set Top Boxes, audio equipment and multi-function equipment for consumer use.

This edition adds methods for measuring On (average) mode power consumption of television sets as defined in clause 11. The power consumption of many televisions varies depending upon the video signal being displayed. Clause 11 includes three different video signals: static, dynamic broadcast-content, and Internet-content. For information about the three video signals and guidance on which signal(s) to use, see Annex C.

For additional considerations regarding average television power consumption, see Annex B.

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Australian/New Zealand Standard**Power consumption of audio, video and related equipment
Part 1: Methods of measurement**

Any table, figure or text of the international standard that is struck through is not part of this standard. Any Australian/New Zealand table, figure or text that is added is part of this standard and is identified by shading.

1 Scope

This ~~International~~ Standard specifies methods of measurement for the power consumption of television sets, video recording equipment, Set Top Boxes (STBs), audio equipment and multi-function equipment for consumer use. Television sets include, but are not limited to, those with CRT, LCD, PDP or projection technologies.

Moreover the different modes of operation which are relevant for measuring power consumption are defined.

The methods of measurement are only applicable for equipment which can be connected to the mains.

The measuring conditions in this Standard represent the normal use of the equipment and may differ from specific conditions, for example as specified in safety Standards.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

AS 4542.2, *Consumer television interfaces, Part 2: Analogue baseband*

EN 50049-1, *Domestic and Similar Electronic Equipment Interconnection Requirements: Peritelevision Connector*

IEC 61938:1996, *Audio, video and audiovisual systems – Interconnections and matching values – Preferred matching values of analogue signals*

IEC 60107-1:1997, *Methods of measurement on receivers for television broadcast transmissions – Part 1: General conditions – Measurements at radio and video frequencies*

IEC 62087:200x video content_DVD_50, *Video content for IEC 62087:200x on DVD™, 50 Hz vertical scan frequency*

IEC 62087:200x video content_DVD_60, *Video content for IEC 62087:200x on DVD™, 60 Hz vertical scan frequency*

IEC 62087:200x video content_BD, *Video content for IEC 62087:200x on Blu-ray™ Disc*