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Interim
Australian/New Zealand Standard™

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

Part 1: Methods of measurement



AS/NZS 62087.1(Int):2009

This Joint Australian/New Zealand Interim 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 3 March 2009 and on behalf of the Council of Standards New Zealand on 20 March 2009.
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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
Consumer Electronics Suppliers Association
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Part 1: Methods of measurement

Originated as AS/NZS 62087:2004.
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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 This Interim Standard will supersede AS/NZS 62087:2004 (in parallel with this Interim Standard until it is superseded in form).

The objective of this Interim 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. AS/NZS 62087.2 is intended to specify compliance values or limits relating to minimum energy performance standards requirements.

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

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

This series, consists of the following parts:

AS/NZS

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|----------------|--|
| 62087 | Power consumption of audio, video and related equipment |
| 62087.1(Int) | 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(Int) | Part 2.2: Minimum energy performance standards (MEPS) and energy rating label requirements for television sets |

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

Standards Australia/Standards New Zealand invite comments on this Interim Standard from persons and organizations concerned with this subject. The closing date for comment on this Interim Standard is four months after publication. After the closing date for comment, the committee will review this Interim Standard in light of public comment received, with the intention of publishing a Joint Australian/New Zealand Standard shortly after the closing date. Although the expiry date of this Interim Standard is 2 years after publication, it will be withdrawn on publication of the Joint Australian/New Zealand Standard. Please forward all comments to the Projects Manager of Committee TE-001.

Attention is drawn to the fact that this document is an Interim Joint Australian/New Zealand Standard only and should be regarded as a developmental Standard and liable to future alteration.

A full point should replace a comma when referring to a decimal marker. 'Shall' indicates that a requirement is mandatory, while 'should' indicates a recommendation and good practice.

The terms 'normative' and 'informative' are used in this Interim 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 Interim 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.

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.

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Interim 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*

3 Terms, definitions and abbreviations**3.1 Definitions**

For the purposes of this International Standard, the following terms and definitions apply.

3.1.1**additional functions**

functions that are not required for the basic operation of the device.