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NSAI Standards

Irish Standard
I.S. EN 62087-2:2016

Audio, video, and related equipment - Determination of power consumption - Part 2: Signals and media

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I.S. EN 62087-2:2016

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This document is based on:	*Published:*
EN 62087-2:2016	2016-01-08

This document was published under the authority of the NSAI and comes into effect on:	ICS number:
2016-01-27	33.160.10
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National Foreword

I.S. EN 62087-2:2016 is the adopted Irish version of the European Document EN 62087-2:2016, Audio, video, and related equipment - Determination of power consumption - Part 2: Signals and media

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62087-2

January 2016

ICS 33.160.10

Supersedes EN 62087:2012 (partially)

English Version

Audio, video, and related equipment - Determination of power consumption - Part 2: Signals and media (IEC 62087-2:2015)

Appareils audio, vidéo et matériel connexe - Détermination de la consommation de puissance - Partie 2 : Signaux et supports (IEC 62087-2:2015)

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European foreword

The text of document 100/2467/FDIS, future edition 1 of IEC 62087-2, prepared by Technical Area 12 "AV energy efficiency and smart grid applications" of IEC/TC 100 "Audio, video and multimedia systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62087-2:2016.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2016-07-08
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2019-01-08

This document supersedes EN 62087:2012 (partially).

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The text of the International Standard IEC 62087-2:2015 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60933-5	NOTE	Harmonized as EN 60933-5.
IEC 62087:2008	NOTE	Harmonized as EN 62087:2009 [1)] (not modified).
IEC 62087:2011	NOTE	Harmonized as EN 62087:2012 (not modified).
IEC 62087 Series	NOTE	Harmonized as EN 62087 Series.
IEC 62087-3	NOTE	Harmonized as EN 62087-3.
IEC 62087-4	NOTE	Harmonized as EN 62087-4.
IEC 62087-5	NOTE	Harmonized as EN 62087-5.
IEC 62087-6	NOTE	Harmonized as EN 62087-6.
IEC 62104:2015	NOTE	Harmonized as EN 62104 [2)] (not modified).

[1)] Superseded by EN 62087:2012 (IEC 62087:2011).

[2)] To be published.

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Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu

Publication	Year	Title	EN/HD	Year
IEC 60107-1	1997	Methods of measurement on receivers for television broadcast transmissions - Part 1: General considerations - Measurements at radio and video frequencies	EN 60107-1	1997
IEC 60268-1 +A1 +A2	1985 1988 1988	Sound system equipment - Part 1: General	HD 483.1 S2	1989
IEC 60958-1 +A1	2008 2014	Digital audio interface - Part 1: General	EN 60958-1 +A1	2008 2014
IEC 60958-3 +A1	2006 2009	Digital audio interface - Part 3: Consumer applications	EN 60958-3 +A1	2006 2010
IEC 61938	2013	Multimedia systems - Guide to the recommended characteristics of analogue interfaces to achieve interoperability	EN 61938	2013
IEC 62087-1	2015	Audio, video, and related equipment - Determination of power consumption - Part 1: General	EN 62087-1 [3)]	-
IEC 62087	2015	Video_content_DVD_50, Video content for the IEC 62087:2015 series on DVD, 50 Hz vertical scan frequency	-	-
IEC 62087	2015	Video_content_DVD_60, Video content for the IEC 62087:2015 series on DVD, 60 Hz vertical scan frequency	-	-
IEC 62087	2015	Video_content_BD_50, Video content for the IEC 62087:2015 series on Blu-ray™ Disc, 50 Hz vertical scan frequency	-	-
IEC 62087	2015	Video_content_BD_60, Video content for the IEC 62087:2015 series on Blu-ray™ Disc, 60 Hz vertical scan frequency	-	-
IEC 62216	2009	Digital terrestrial television receivers for the DVB-T system	EN 62216	2011

[3)] To be published.

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IEC 62087-2

Edition 1.0 2015-06

INTERNATIONAL STANDARD

colour inside

Audio, video, and related equipment – Determination of power consumption – Part 2: Signals and media

IEC 62087-2:2015-06(en)

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IEC 62087-2

Edition 1.0 2015-06

INTERNATIONAL STANDARD

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Audio, video, and related equipment – Determination of power consumption – Part 2: Signals and media

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ICS 33.160.10

ISBN 978-2-8322-2682-7

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

AUDIO, VIDEO, AND RELATED EQUIPMENT – DETERMINATION OF POWER CONSUMPTION –

Part 2: Signals and media

FOREWORD

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International Standard IEC 62087-2 has been prepared by technical area 12: AV energy efficiency and smart grid applications, of IEC technical committee 100: Audio, video and multimedia systems and equipment.

This first edition of IEC 62087-2 together with IEC 62087-1 and IEC 62087-3 to IEC 62087-6 cancels and replaces IEC 62087:2011 in its entirety. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to Clause 11 of IEC 62087:2011.

– The signals included on the discs are now numbered generically, rather than being based on the subclause numbers within the text of the television test method.
– Video test patterns used to determine the peak luminance ratio are now included on the discs.
– Audio test signals are specified.

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– The box and outline video signal has been added.

The text of this standard is based on the following documents:

FDIS	Report on voting
100/2467/FDIS	100/2497/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

A list of all parts in the IEC 62087 series, published under the general title *Audio, video, and related equipment – Determination of power consumption*, can be found on the IEC website.

This publication contains attached files in the form of DVDs and Blu-ray discs, as indicated in the list of normative references. These files form an integral part of this standard.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

This standard identifies signals and media to be used to determine power consumption and related characteristics specified in some other parts of IEC 62087:2015. The media include Blu-ray Discs™ and DVDs.

IEC 62087:2008[1] (second edition) added methods for measuring On (average) mode power consumption of televisions, based on three video signal sets. These include static, dynamic broadcast-content, and Internet-content signals.

IEC 62087:2011[2] (third edition) revised methods for measuring power consumption of set top boxes. The signals and media were not changed in this third edition.

This edition of IEC 62087 separates the standard into parts, including this signals and media part which specifies signals that are to be used for determining power consumption and related characteristics. The three original video signal sets (static, dynamic broadcast-content, and Internet-content) are not changed. This edition adds signals for the purpose of determining the peak luminance ratio that is sometimes associated with television power consumption measurement programs.

IEC 62087 has been subdivided and currently consists of the following planned or published parts:

– Part 1: General
– Part 2: Signals and media
– Part 3: Television sets
– Part 4: Video recording equipment
– Part 5: Set top boxes
– Part 6: Audio equipment

[1] IEC 62087:2008, *Methods of measurement for the power consumption of audio, video and related equipment*

[2] IEC 62087:2011, *Methods of measurement for the power consumption of audio, video and related equipment*

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AUDIO, VIDEO, AND RELATED EQUIPMENT – DETERMINATION OF POWER CONSUMPTION –

Part 2: Signals and media

1 Scope

This part of IEC 62087 specifies signals and media used in determination of the power consumption of audio, video, and related equipment, such as television sets and computer monitors. It also specifies signals for determining the peak luminance ratio that is sometimes associated with television power consumption measurement programs. In addition, this part specifies equipment, interfaces, and accuracy related to signal generation.

2 Normative references

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

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

IEC 60268-1:1985, *Sound system equipment – Part 1: General*
IEC 60268-1:1985/AMD1:1988-01
IEC 60268-1:1985/AMD2:1988-06

IEC 60958-1:2008, *Digital audio interface – Part 1: General*
IEC 60958-1:2008/AMD1:2014

IEC 60958-3:2006, *Digital audio interface – Part 3: Consumer applications*
IEC 60958-3:2006/AMD1:2009

IEC 61938:2013, *Multimedia systems – Guide to the recommended characteristics of analogue interfaces to achieve interoperability*

IEC 62087-1:2015, *Audio, video, and related equipment – Determination of power consumption – Part 1: General*

IEC 62087:2015, video_content_DVD_50, *Video content for the IEC 62087:2015 series on DVD, 50 Hz vertical scan frequency*

IEC 62087:2015, video_content_DVD_60, *Video content for the IEC 62087:2015 series on DVD, 60 Hz vertical scan frequency*

IEC 62087:2015, video_content_BD_50, *Video content for the IEC 62087:2015 series on Blu-ray™ Disc, 50 Hz vertical scan frequency*

IEC 62087:2015, video_content_BD_60, *Video content for the IEC 62087:2015 series on Blu-ray™ Disc, 60 Hz vertical scan frequency*

IEC 62216:2009, *Digital terrestrial television receivers for the DVB-T system*

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