

Australian/New Zealand Standard™

**Information technology equipment—
Energy performance of computer
monitors**

**Part 1: Methods of measurement of
energy performance**



AS/NZS 5815.1:2012

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 21 June 2012 and on behalf of the Council of Standards New Zealand on 26 June 2012.

This Standard was published on 26 July 2012.

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
Department of Climate Change and Energy Efficiency
Department of Defence, Australia
Electrical Compliance Testing Association
Electrical Regulatory Authorities Council
Energy Efficiency and Conservation Authority of New Zealand
Energy Networks Association
Free TV Australia
Ministry of Economic Development, New Zealand
SingTel Optus
Telstra Corporation

Keeping standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.saiglobal.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

Australian/New Zealand Standard™

**Information technology equipment—
Energy performance of computer
monitors**

**Part 1: Methods of measurement of
energy performance**

First published as AS/NZS 5815.1:2012.

COPYRIGHT

© Standards Australia Limited/Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Australia) or the Copyright Act 1994 (New Zealand).

Jointly published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001 and by Standards New Zealand, Private Bag 2439, Wellington 6140

ISBN 978 1 74342 204 5

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Technical Committee TE-001, Safety of Electronic Equipment.

The objective of this Standard is to provide designers, manufacturers, importers, test laboratories, regulators and users of computer monitors with the power consumption measurement method to be used to assess the minimum energy performance standards (MEPS) specified in AS/NZS 5815.2 for these devices.

This Standard is published with the approval of Australian and New Zealand regulatory authorities and is structured to be suitable for reference in regulations.

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

AS/NZS

- 5815 Information technology equipment—Energy performance of computer monitors
- 5815.1 Part 1: Methods of measurement of energy performance (this Standard)
- 5815.2 Part 2: Minimum energy performance standards (MEPS) and energy rating labels.

CONTENTS

	Page
FOREWORD.....	4
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	5
1.2 EXCLUSIONS.....	5
1.3 APPLICATION	5
1.4 REFERENCED DOCUMENTS.....	5
1.5 DEFINITIONS.....	5
SECTION 2 MEASURING CONDITIONS	
2.1 GENERAL MEASURING CONDITIONS	7
2.2 POWER MEASUREMENT INSTRUMENT.....	7
2.3 GENERAL MEASUREMENT PROCEDURES	8
2.4 ON (AVERAGE) MODE MEASURING CONDITIONS FOR COMPUTER MONITORS	9
SECTION 3 MEASURING TEST METHODS	
3.1 TEST METHOD FOR FIXED PIXEL COMPUTER MONITORS USING A STATIC TEST PATTERN AND <i>WITHOUT</i> ABC ENABLED BY DEFAULT	10
3.2 TEST METHOD FOR FIXED PIXEL COMPUTER MONITORS USING A STATIC TEST PATTERN AND <i>WITH</i> ABC ENABLED BY DEFAULT	11
3.3 TEST METHOD FOR COMPUTER MONITORS USING THE DYNAMIC BROADCAST-CONTENT VIDEO SIGNAL.....	11
3.4 STANDBY AND OFF MODE.....	12
APPENDIX A SAMPLE TEST REPORT	13

FOREWORD

In Australia, the energy labelling and MEPS requirements set out in AS/NZS 5815.2 are intended to be in force no earlier than 1 April 2013. Computer monitors covered in AS/NZS 5815.2 are required to be tested by this standard. Information can be found at the <http://www.energyrating.gov.au> website.

Currently in preview, click buy full version

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard**Information technology equipment—Energy performance of computer monitors****Part 1: Methods of measurement of energy performance**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies methods to measure computer monitor power consumption to determine compliance with the MEPS requirements for computer monitors specified in AS/NZS 5815.2. This Standard has been developed as an energy performance measuring standard for computer monitors and can be used for purposes other than determining MEPS compliance.

1.2 EXCLUSIONS

This Standard does not apply to the following:

- (a) Computer monitors powered solely from batteries. This includes computer monitors that have provision for connection to the mains for the sole purpose of charging the batteries.
- (b) Integrated computers that integrate the monitor with the computer. Examples are, but are not limited to, integrated desktops and laptops.

1.3 APPLICATION

This Standard shall be read in conjunction with AS/NZS 5815.2.

1.4 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
2706	Numerical values—Rounding and interpretation of limiting values
AS/NZS	
4665	Performance of external power supplies
4665.1	Part 1: Test method and energy performance mark
4665.2	Part 2: Minimum energy performance standard (MEPS) requirements
5815	Information technology equipment—Energy performance of computer monitors
5815.2	Part 2: Minimum energy performance standards (MEPS) for computer monitors
IEC	
60050-300	International Electrotechnical Vocabulary—Electrical and electronic measurements and measuring instruments
62087	Methods of measurement for the power consumption of audio, video and related equipment
62301	Household electrical appliances—Measurement of standby power