

AS/NZS IEC 61000.4.3:2013
IEC 61000-4-3, Ed.3.2 (2010)

AS/NZS IEC 61000.4.3:2013

Australian/New Zealand Standard™

Electromagnetic compatibility (EMC)

**Part 4.3: Testing and measurement
techniques—Radiated, radio-frequency,
electromagnetic field immunity test**



AS/NZS IEC 61000.4.3:2013

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee TE-003, Electromagnetic Interference. It was approved on behalf of the Council of Standards Australia on 4 June 2013 and on behalf of the Council of Standards New Zealand on 23 April 2013.
This Standard was published on 20 June 2013.

The following are represented on Committee TE-003:

Australian Broadcasting Corporation
Australian Communications and Media Authority
Australian Industry Group
Australian Information Industry Association
Consumer Electronics Suppliers Association
Consumers Federation of Australia
Curtin University of Technology
Department of Defence, Australia
Electrical Compliance Testing Association
Energy Networks Association
Engineers Australia
Lighting Council New Zealand
Lighting Council of Australia
Ministry of Economic Development, New Zealand
National Measurement Institute
Wireless Institute Australia

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 Standards may also be withdrawn.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.

This Standard was issued in draft form for comment as DR AS/NZS IEC 61000.4.3.

AS/NZS IEC 61000.4.3:2013

Australian/New Zealand Standard™

Electromagnetic compatibility (EMC)

Part 4.3: Testing and measurement techniques—Radiated, radio-frequency, electromagnetic field immunity test

Originated as AS/NZS 61000.4.3:1999.

Previous edition 2006.

Jointly revised and designated AS/NZS IEC 61000.4.3:2013.

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 512 1

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TE-003, Electromagnetic Interference, to supersede AS/NZS 61000.4.3:2006.

The objective of this Standard is to provide designers, manufacturers, and testers of equipment incorporating electrical or electronic operation with methods of test for ascertaining immunity to electromagnetic disturbances.

This Standard is identical with, and has been reproduced from IEC 61000-4-3, Ed.3.2 (2010), *Electromagnetic compatibility (EMC), Part 4-3: Testing and measurement techniques—Radiated, radio-frequency, electromagnetic field immunity test*. Edition 3.2 of IEC 61000-4-3 incorporates Amendment 1 (2007), Amendment 2 (2010) and interpretation sheet 1 of August 2008. The amendments are indicated by marginal bars.

As this Standard is reproduced from an International Standard, the following applies:

- (a) In the source text ‘this part of IEC 61000’ should read ‘this Australian/New Zealand Standard’.
- (b) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>	<i>Australian Standard</i>
IEC	AS
60068 Environmental testing	60068 Environmental testing
60068-1 Part 1: General and guidance	60068.1 Part 1: General and guidance
61000 Electromagnetic compatibility (EMC)	AS/NZS 61000 Electromagnetic compatibility (EMC)
61000-4-6 Part 4-6: Testing and measurement techniques—Immunity to conducted disturbances, induced by radio-frequency fields	61000-4-6 Part 4.6: Testing and measurement techniques—Immunity to conducted disturbances, induced by radio-frequency fields

Only international references that have been adopted as Australian or Australian/New Zealand standards have been listed.

CONTENTS

1	Scope and object.....	7
2	Normative references	7
3	Terms and definitions	8
4	General	11
5	Test levels.....	11
5.1	Test levels related to general purposes	12
5.2	Test levels related to the protection against RF emissions from digital radio telephones and other RF emitting devices	12
6	Test equipment.....	13
6.1	Description of the test facility	13
6.2	Calibration of field	14
7	Test setup	19
7.1	Arrangement of table-top equipment.....	19
7.2	Arrangement of floor-standing equipment	19
7.3	Arrangement of wiring	20
7.4	Arrangement of human body-mounted equipment.....	20
8	Test procedure	20
8.1	Laboratory reference conditions	20
8.2	Execution of the test.....	21
9	Evaluation of test results	22
10	Test report.....	22
Annex A (informative) Rationale for the choice of modulation for tests related to the protection against RF emissions from digital radio telephones		31
Annex B (informative) Field generating antennas		36
Annex C (informative) Use of anechoic chambers		37
Annex D (informative) Amplifier non-linearity and example for the calibration procedure according to 6.2		40
Annex E (informative) Guidance for product committees on the selection of test levels		45
Annex F (informative) Selection of test methods		48
Annex G (informative) Description of the environment.....		49
Annex H (normative) Alternative illumination method for frequencies above 1 GHz ("independent windows method")		54
Annex I (informative) Calibration method for E-field probes.....		57
Annex J (informative) Measurement uncertainty due to test instrumentation		72
Figure 1 – Definition of the test level and the waveshapes occurring at the output of the signal generator		24
Figure 2 – Example of suitable test facility		25
Figure 3 – Calibration of field		26
Figure 4 – Calibration of field, dimensions of the uniform field area		27
Figure 5 – Example of test setup for floor-standing equipment		28
Figure 6 – Example of test setup for table-top equipment.....		29

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-