AS/NZS 61000.4.3:2006 IEC 61000-4-3:2006

Australian/New Zealand Standard™

**Electromagnetic compatibility (EMC)** 

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





#### AS/NZS 61000.4.3:2006

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 19 April 2006 and on behalf of the Council of Standards New Zealand on 19 May 2006. This Standard was published on 1 June 2006.

This Standard was published on T June 2000.

The following are represented on Committee TE-003:

Australian Broadcasting Corporation Australian Chamber of Commerce and Industry Australian Communications and Media Authority Australian Electrical and Electronic Manufacturers Association Australian Information Industry Association **Consumer Electronics Supplier Association** Electrical Compliance Testing Association **Engineers** Australia Free TV Australia Ministry of Economic Development, New Zealand National Measurement Institute SingTel Optus Society of Automotive Engineers, Australasia **Telstra** Corporation University of Western Australia 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 Standards may also be withdrawn.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.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. 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 06050.

# Australian/New Zealand Standard<sup>™</sup>

## **Electromagnetic compatibility (EMC)**

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

Originated as AS/NZS 610004.3:1999. Second edition 2006.

COPYRIGHT

© Standards Australia/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.

Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ii

#### PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TE-003, Electromagnetic Interference to supersede AS/NZS 61000.4.3:1999. It is one of a series of Standards intended to facilitate control of electromagnetic interference and the compatibility of electrical and electronic equipment.

This Standard is identical with, and has been reproduced from IEC 61000-4-3:2006, *Electromagnetic compatibility (EMC)*—*Part 4-3: Radiated, radio-frequency, electromagnetic field immunity test.* 

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.

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

- (a) Its number appears on the cover and title page while the international standard number appears only on the cover
- (b) In the source text 'this part of IEC 61000' should read 'this Australian/New Zealand Standard'.
- (c) 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:

Reference to International Standard		Australian/New Zealand Standard	
IEC		AS/NZS	
60050	International Electrotechnical Vocabulary (IEV)		
60050(161):	Chapter 161:Electromagnetic compatibility	—	
61000	Electromagnetic compatibility (EMC)	61000	Electromagnetic compatibility (EMC)
61000.4-6	Part 4: Testing and measurement techniques—Section 6: 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

The terms 'normative' and 'informative' have been used in this Standard to define the application of the annex to which they apply. A 'normative' annex is an integral part of a Standard, whereas an 'informative' annex is only for information and guidance.

iii

### CONTENTS

### Page

1	Scope and object1			
2	Normative references			
3	Terms and definitions			
4	Gene	eral	5	
5	Test levels			
	5.1	Test levels related to general purposes	6	
	5.2	Test levels related to the protection against RF emissions from digital radio telephones and other RF emitting devices	6	
6	Test	equipment	7	
	6.1	Description of the test facility	7	
	6.2	Calibration of field	8	
7	Test	setup1	3	
	7.1	Arrangement of table-top equipment1	3	
	7.2	Arrangement of floor-standing equipment1	3	
	7.3	Arrangement of wiring1	4	
	7.4	Arrangement of human body-mounted equipment1	4	
8	Test	procedure1	4	
	8.1	Laboratory reference conditions1	4	
	8.2	Execution of the test1	5	
9	Evalu	uation of test results1	6	
10	Test	report1	6	
Annex A (informative) Rationale for the choice of modulation for tests related to the protection against RF emissions from digital radio telephones				

 procedure according to 6.2
 34

 Annex E (informative) Guidance for product committees on the selection of test levels
 39

 Annex F (informative) Selection of test methods
 42

 Annex G (informative) Description of the environment.
 43

Annex D (informative) Amplifier non-linearity and example for the calibration

Annex H (normative) Alternative illumination method for frequencies above 1 GHz



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

**Product Page** 

S Looking for additional Standards? Visit Intertek Inform Infostore

> Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation