

Australian/New Zealand Standard™

Electromagnetic compatibility (EMC)

**Part 1.1: General—Application and
interpretation of fundamental definitions
and terms**



S t a n d a r d s Australia



STANDARDS
NEW ZEALAND
Pūnaha Aotearoa

AS/NZS 61000.1.1:2000

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AS/NZS 61000.1.1:2000

Electromagnetic compatibility (EMC)

Part 1.1: General—Application and interpretation of fundamental definitions and terms

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NOTES

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee TE/3, Electromagnetic Interference. This Standard is identical with and has been reproduced from IEC 61000-1-1:1992, *Electromagnetic compatibility (EMC), Part 1: General, Section 1: Application and interpretation of fundamental definitions and terms*.

The objective of this Standard is to provide the users of electromagnetic emissions and immunity Standards with a specification for the application of fundamental terms contained in those Standards.

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AUSTRALIAN/NEW ZEALAND STANDARD

Electromagnetic compatibility (EMC)**Part 1.1: General—Application and interpretation of fundamental definitions and terms****1 Scope**

The object of this report is to describe and interpret various terms considered to be of basic importance to concepts and practical application in the design and evaluation of electromagnetically compatible systems. In addition, attention is drawn to the distinction between electromagnetic compatibility (EMC) tests carried out in a standardized set-up and those carried out at the location where a device (equipment or system) is installed (*in situ* tests).

The terms and their definitions are given in clause 2, with reference to chapter 161 of the IEC [1]. The application of the terms is described in clause 3 and an interpretation of their definitions is presented in the annexes.

2 Definition of terms

The terms of importance in the context of this report are defined below. Each definition is followed by its IEC number when it is identical with the definition (and any note accompanying it) given in [1]*. Where it differs, the IEC number is followed by "/A", or it is indicated that the term has not been defined in IEC 50(161).

The terms and their definitions can be divided into three groups:

- 1) **Basic terms**, for example electromagnetic compatibility, emission, immunity and level;
- 2) **Combined terms**, which combine basic terms, for example emission level, compatibility level and immunity limit.
- 3) **Interrelated terms**, which interrelate combined terms, for example emission margin and compatibility margin.

2.1 Basic terms

electromagnetic environment (161-01-01): The totality of electromagnetic phenomena existing at a given location.

Note/A: In general, this totality is time dependent and its description may need a statistical approach.

electromagnetic disturbance (161-01-05): Any electromagnetic phenomenon which may degrade the performance of a device, equipment or system, or adversely affect living or inert matter.

NOTE - An electromagnetic disturbance may be an electromagnetic noise, an unwanted signal or a change in the propagation medium itself.

* The figures in square brackets indicate the references listed in page 64.