

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Integrated circuits – Measurement of electromagnetic immunity –
Part 1: General conditions and definitions**

**Circuits intégrés – Mesure de l'immunité électromagnétique –
Partie 1: Conditions générales et définitions**





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INTEGRATED CIRCUITS – MEASUREMENT OF ELECTROMAGNETIC IMMUNITY –

Part 1: General conditions and definitions

FOREWORD

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International Standard IEC 62132-1 has been prepared by subcommittee 47A: Integrated circuits, of IEC technical committee 47: Semiconductor devices.

This second edition cancels and replaces the first edition published in 2006 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) frequency range of 150 kHz to 1 GHz has been deleted from the title;
- b) frequency step above 1 GHz has been added in Table 2 in 7.4.1;
- c) IC performance classes in 8.3 have been modified;
- d) Table A.1 was divided into two tables, and references to IEC 62132-8 and IEC 62132-9 have been added in the new Table A.2 in Annex A.

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

FDIS	Report on voting
47A/974/FDIS	47A/977/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.

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

A list of all parts in the IEC 62132 series, published under the general title *Integrated circuits – Measurement of electromagnetic immunity*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

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- withdrawn,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.

INTRODUCTION

The IEC 62132 series is published in several parts, under the general title *Integrated circuits – Measurement of electromagnetic immunity*:

- Part 1: General conditions and definitions
- Part 2: Measurement of radiated immunity – TEM cell and wideband TEM cell method
- Part 3: Bulk current injection (BCI) method
- Part 4: Direct RF power injection method
- Part 5: Workbench Faraday cage method
- Part 8: Measurement of radiated immunity – IC stripline method
- Part 9: Measurement of radiated immunity – Surface scan method

INTEGRATED CIRCUITS – MEASUREMENT OF ELECTROMAGNETIC IMMUNITY –

Part 1: General conditions and definitions

1 Scope

This part of IEC 62132 provides general information and definitions about measurement of electromagnetic immunity of integrated circuits (ICs) to conducted and radiated disturbances. It also defines general test conditions, test equipment and setup, as well as the test procedures and content of the test reports for all parts of the IEC 62132 series. Test method comparison tables are included in Annex A to assist in selecting the appropriate measurement method(s).

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 62132-2, *Integrated circuits – Measurement of electromagnetic immunity – Part 2: Measurement of radiated immunity – TEM cell and wideband TEM cell method*

IEC 62132-3, *Integrated circuits – Measurement of electromagnetic immunity, 150 kHz to 1 GHz – Part 3: Bulk current injection (BCI) method*

IEC 62132-4, *Integrated circuits – Measurement of electromagnetic immunity, 150 kHz to 1 GHz – Part 4: Direct RF power injection method*

IEC 62132-5, *Integrated circuits – Measurement of electromagnetic immunity, 150 kHz to 1 GHz – Part 5: Workbench Faraday cage method*

IEC 62132-8, *Integrated circuits – Measurement of electromagnetic immunity – Part 8: Measurement of radiated immunity – IC Stripline method*

IEC TS 62132-9, *Integrated circuits – Measurement of electromagnetic immunity – Part 9: Measurement of radiated immunity – Surface scan method*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 amplitude modulation

AM

process by which the amplitude of a periodic carrier wave is varied according to a specified law

Note 1 to entry: This note applies to the French language only.