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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 44937.6-2025

**Integrated circuits - Measurement of electromagnetic emissions
- Part 6: Measurement of conducted emissions - Magnetic probe
method**

集成电路 电磁发射测量 第6部分：传导发射测量 磁场探头法
(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 6 of GB/T 44937 "Measurement of Electromagnetic Emissions of Integrated Circuits". GB/T 44937 has been published as follows.

part.

---Part 1: General Conditions and Definitions;

---Part 2: Radiation Emission Measurement TEM Cell and Broadband TEM Cell Method;

---Part 3: Surface Scanning Method for Radiation Emission Measurement;

---Part 4: Conducted emission measurement using the 1ohm/150ohm direct coupling method;

---Part 5: Conducted Emission Measurement Stand Faraday Cage Method;

---Part 6: Conducted Emission Measurement Using Magnetic Field Probes;

---Part 8: Radiated Emission Measurement IC Stripline Method this document is equivalent to IEC 61967-6:2008 "Measurement of electromagnetic emissions from integrated circuits 150 kHz to 1 GHz - Part 6: Conducted electromagnetic emissions".

"Emission measurement magnetic field probe method".

The following minimal editorial changes have been made to this document.

---To align with existing standards, the standard title has been changed to "Electromagnetic Emission Measurement of Integrated Circuits - Part 6: Conducted Emission Measurement" "Magnetic Field Probe Method"

---Includes the technical errata of IEC 61967-6:2008/COR1.2010, located in the margin outside the relevant clauses.

It was marked with a vertical double line (||).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This document is under the jurisdiction of the National Integrated Circuit Standardization Technical Committee (SAC/TC599).

Introduction

To standardize electromagnetic emission measurement for integrated circuits, and to provide different electromagnetic emission measurement methods for integrated circuit manufacturers and testing institutions.

GB/T 44937, "Measurement of Electromagnetic Emissions of Integrated Circuits," specifies the general conditions, definitions, and different methods for measuring the electromagnetic emissions of integrated circuits.

The test procedures and requirements for the measurement method are proposed to consist of nine parts.

---Part 1: General Conditions and Definitions. The purpose is to define the general conditions and definitions for electromagnetic emission measurements of integrated circuits.

---Part 1-1. General Conditions and Definitions of Near-Field Scanning Data Exchange Format. The purpose is to specify the near-field scanning data exchange format.
Format.

---Part 2: Radiation Emission Measurement using TEM Cells and Broadband TEM Cells. The aim is to define the TEM cell and broadband TEM cell methods.

Test procedures and requirements for the TEM chamber method.

---Part 3: Surface Scanning Method for Radiation Emission Measurement. The purpose is to specify the test procedures and requirements for the surface scanning method.

---Part 4: Conducted Emission Measurement - 1ohm/150ohm Direct Coupling Method. The purpose is to define the 1ohm/150ohm direct coupling method.

Test procedures and test requirements.

---Part 4-1. Application Guidelines for Conducted Emission Measurements using the 1ohm/150ohm Direct Coupling Method. The aim is to provide guidance on the application of the 1ohm/150ohm direct coupling method.

Application guidelines for the coupling method.

---Part 5: Conducted Emission Measurement Stand Faraday Cage Method. The purpose is to define the test procedures for the stand Faraday cage method.

and testing requirements.

---Part 6: Conducted Emission Measurement Using Magnetic Field Probes. The purpose is to specify the test procedures and requirements for the magnetic field probe method.

---Part 8: Radiated Emission Measurement - IC Stripline Method. The purpose is to specify the test procedures and requirements for the IC stripline method.

Electromagnetic emission measurement of integrated circuits Part 6: Conducted Emission Measurement Magnetic Field Probe Method

1 Scope

This document describes the use of miniature magnetic field probes for non-contact current measurement to evaluate the radio frequency (RF) current of integrated circuit (IC) pins.

The method.

This method measures the RF current generated by an IC in the frequency range of 150kHz to 1GHz, and is applicable to single or multiple ICs on a standard test board.

Measurements were taken of ICs to characterize and compare their RF currents. This method is also used to evaluate ICs on printed circuit boards (PCBs) in actual use.

The electromagnetic properties of a single IC or a group of ICs are analyzed to reduce emissions. This method is called the "magnetic field probe method".

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

IEC 61967-1 Measurement of electromagnetic emissions from integrated circuits 150 kHz to 1 GHz - Part 1: General conditions and definitions Note. GB/T 44937.1-2025

Electromagnetic emission measurement of integrated circuits - Part 1: General conditions and definitions (IEC 61967-1:2018, IDT) IEC 61967-4 Measurement of electromagnetic emissions from integrated circuits 150 kHz to 1 GHz - Part 4: Measurement of conducted emissions 1ohm/150ohm direct current Note. GB/T 44937.4-2024 Electromagnetic emission measurement of integrated circuits - Part 4: Conducted emission measurement - 1ohm/150ohm direct coupling method (IEC 61967-4:2021, IDT)