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Standards
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Australian Standard®
2547.2.4—1988

SEMICONDUCTOR DEVICES
Part 2.4—INTEGRATED CIRCUITS—INTERFACE

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This Australian Standard was prepared by Committee TE/12, Semiconductors and Devices. It was approved on behalf of the Council of the Standards Association of Australia on 6 April 1988 and published on 15 July 1988.

The following interests are represented on Committee TE/12:

Confederation of Australian Industry

Department of Defence

Department of Industry, Technology and Commerce

Institution of Radio and Electronics Engineers, Australia

Telecom Australia

AUSTRALIAN STANDARD

SEMICONDUCTOR DEVICES
Part 2.4
INTEGRATED CIRCUITS—INTERFACE

AS 2547.2.4—1988

See also Preface
First published as AS 2547.2.4—1988.

PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.
ISBN 0 7262 5103 8

PREFACE

This Standard was prepared by the Association's Committee on Semiconductors and Devices. It is reproduced from IEC 748-4(1987) and is one of the Standards prepared by IEC/TC 47, Semiconductor devices.

This Standard is one of a series of Standards published under the generic specification AS 2547, *Semiconductor devices*. This Standard supersedes:

- the existing AS 2547 series (published in 1982 and 1983 and identical to equivalent parts of IEC 147* published between 1966 and 1981);
- AS C366, Part 4—1978 and Part 5—1978 (equivalent to IEC 147-4, IEC 147-5 and IEC 147-5A);
- AS C367 (endorsement of IEC 148—1969);
- AS 1967 (identical to IEC 147-1D and -1E).

The purpose of IEC 747 is to reorganize into a device oriented publication, the material originally presented in the IEC 147* series, and IEC 148† on semiconductor devices and letter symbols representing them, is now republished as follows:

(a) Specific requirements for integrated circuits—now IEC 748.

(b) Mechanical and climatic test methods—now IEC 749.

It was in view of the above reorganization that Committee TE/12 agreed to integrate the entire series into one series of Australian Standards using the generic designation AS 2547. The relationship with the three IEC Standards is as follows:

(i) Part 1.1 onwards—identical with the IEC 747 series.

(ii) Part 2.1 onwards—identical with the IEC 748 series.

(iii) Part 3—identical with IEC 749.

For the purpose of this Australian Standard and all other Standards in this AS 2547 series, the text of the reproduced IEC Publications should be modified as follows:

A. *Terminology.* The words 'Australian Standard' should replace the words 'IEC Publication' wherever they appear.

B. *Cross-references.* The reference to IEC Publications should be replaced by references to the appropriate Australian Standards as follows:

Reference to IEC Publications		*Appropriate Australian Standard*	
IEC 27	Letter symbols to be used in electrical technology	AS 1046	Letter symbols for use in electrotechnology
IEC 50	International electrotechnical vocabulary	AS 1852	International electrotechnical vocabulary
IEC 191	Mechanical standardization of semiconductor devices	AS C379	Mechanical standardization of semiconductor devices
IEC 319	Presentation of reliability data on electronic components	AS 2530	Presentation of reliability data on electronic and similar components
IEC 747	Semiconductor devices—Discrete devices and integrated circuits	AS 2547.1	Semiconductor devices—Discrete devices
747.1	General	1.1	Discrete devices—General
747.2	Rectifier diodes	1.2	Discrete devices—Rectifier diodes
747.3	Signal (including switching) and regulator diodes	1.3	Discrete devices—Signal (including switching) and regulator diodes
747.4	R.F. diodes	1.4	Discrete devices—R.F. diodes
747.5	Optoelectronic devices	1.5	Discrete devices—Optoelectronic devices
747.6	Thyristors	1.6	Discrete devices—Thyristors
747.7	Bipolar transistors	1.7	Discrete devices—Bipolar transistors

* IEC 147, *Essential ratings and characteristics of semiconductor devices and general principles of measuring methods.*

† IEC 148, *Letter symbols for semiconductor devices and integrated microcircuits.*

Reference to IEC Publications		*Appropriate Australian Standard*	
747.8	Field-effect transistors	1.8	Discrete devices—Field-effect transistors
747.9	Miscellaneous devices	1.9	Discrete devices—Miscellaneous devices
747.10	Generic specification for discrete devices and integrated circuits (QC 700 000)	1.10	Generic specification for discrete devices and integrated circuits (QC 700 000)
747.11	Sectional specification for discrete devices (QC 750 000)	1.11	Sectional specification for discrete devices (QC 750 000)
IEC 748	Semiconductor devices—Integrated circuits	AS 2547.2	Semiconductor devices—Integrated circuits
IEC 748.1	General	2.1	Integrated circuits—General
IEC 748.2	Digital integrated circuits	2.2	Integrated circuits—Digital
IEC 748.3	Analogue integrated circuits	2.3	Integrated circuits—Analogue
IEC 748.4	Interface integrated circuits	2.4	Integrated circuits—Interface
IEC 749	Semiconductor devices—Mechanical and climatic test methods	AS 2547.3	Semiconductor devices—Mechanical and climatic test methods

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(Under consideration)

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
SEMICONDUCTOR DEVICES

PART 2.4: INTEGRATED CIRCUITS—INTERFACE

CHAPTER I: GENERAL

1. **Introductory note**

As a rule, it will be necessary to use Publications 747-1 and 748-1 together with the present publication.

In Publications 747-1 and 748-1, the user will find all basic information on:

- terminology;
- letter symbols;
- essential ratings and characteristics;
- measuring methods.

The sequence of the different chapters of the present publication is in accordance with Publication 747-1, Chapter III, Sub-clause 2.1.

2. **Scope**

The present publication gives standards for the following categories or sub-categories of interface integrated circuits:

- Category I:

  Sub-category A: Line circuits (transmitters and receivers);

  Sub-category B: Sense amplifiers;

  Sub-category C: Peripheral drivers (including memory drivers) and level shifters;

  Sub-category D: Voltage comparators.

- Category II:

  Linear and non-linear analogue-to-digital and digital-to-analogue converters.