Australian Standard®

Information technology—Radio frequency identification for item management

Part 1: Reference architecture and definition of parameters to be standardized

This Australian Standard® was prepared by Committee IT-034, Automatic Identification and Data Capture Techniques. It was approved on behalf of the Council of Standards Australia on 15 November 2006.
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The following are represented on Committee IT-034:

- Australian Custom Service
- Australian Data Capture Association
- Australian Electrical and Electronic Manufacturers Association
- Australian Retailers Association
- Australian Veterinary Association
- Department of Communications, Information Technology and the Arts
- Department of Defence
- Department of Primary Industries, Vic
- GS1 Australia
- RFID Association of Australia
- The University of Adelaide

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PREFACE

This Standard was prepared by the Standards Australia Committee IT-034, Automatic Identification and Data Capture Techniques.

The objective of this Standard is to provide a description of the generic architecture concepts in which item identification may commonly be required within the logistics and supply chain and defines the parameters that need to be determined in any standardized air interface definition.

This Standard is identical with, and has been reproduced from ISO/IEC 18000-1:2004 *Information technology—Radio frequency identification for item management*—Part 1: *Reference architecture and definition of parameters to be standardized*.

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 ISO/IEC 18000' should read 'this Australian 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 Standard*	
ISO/IEC 19762 (all parts)	Information technology—Automatic identification and data capture (AIDC) techniques—Harmonized vocabulary	AS ISO/IEC 19762 (all parts)	Information technology—Automatic identification and data capture (AIDC) techniques—Harmonized vocabulary

The term 'informative' has been used in this Standard to define the application of the annex to which it applies. An 'informative' annex is only for information and guidance.

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INTRODUCTION

ISO/IEC 18000 has been developed by ISO/IEC SC 31 WG 4, radio frequency identification for item identification and management, in order to provide parameter definitions for communications protocols within a common framework for internationally useable frequencies for radio frequency identification (RFID), and where possible, to determine the use of the same protocols for ALL frequencies such that the problems of migrating from one to another are diminished; to minimise software and implementation costs; and to enable system management and control and information exchange to be common as far as is possible.

Informative Annexes to this part of ISO/IEC 18000 provide contact information in respect of the radio regulations within which such systems have to operate, and some informational views of system architectures within which RFID for item management is likely to be used (Annexes A and C).

AUSTRALIAN STANDARD

Information technology — Radio frequency identification for item management —

Part 1:
Reference architecture and definition of parameters to be standardized

1 Scope

1.1 This part of ISO/IEC 18000 describes the generic architecture concepts in which item identification may commonly be required within the logistics and supply chain and defines the parameters that need to be determined in any standardized air interface definition in the subsequent parts of ISO/IEC 18000. The subsequent parts of ISO/IEC 18000 provide the specific values for definition of the air interface parameters for a particular frequency/type of air interface from which compliance to (or non compliance with) this part of ISO/IEC 18000 can be established. This part of ISO/IEC 18000 also provides description of example conceptual architectures in which these air interfaces are often to be utilized.

1.2 This part of ISO/IEC 18000 limits its scope to transactions and data exchanges across the air interface at **Reference point delta** (see Figure 1). The means of generating and managing such transactions, other than a requirement to achieve the transactional performance determined within this part of ISO/IEC 18000, are outside the scope of this part of ISO/IEC 18000, as is the definition or specification of any supporting hardware, firmware, software or associated equipment.

1.3 Standardization of other reference points is outside the scope of this part of ISO/IEC 18000. (See Figure 1.)

1.4 This part of ISO/IEC 18000 is an enabling standard which supports and promotes several RFID implementations without making conclusions about the relative technical merits of any available option for any possible application.

1.5 This part of ISO/IEC 18000 also provides reference information in respect of patents that have been declared to the developers of ISO/IEC 18000 as pertinent and provides reference addresses in respect of regulations under which ISO/IEC 18000 must operate.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 19762 (all parts), *Information technology — AIDC techniques — Harmonized vocabulary*[1)]

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 19762 (all parts) and the following apply.

1) To be published.