

Australian Standard[®]

**Information technology—Radio
frequency identification device
conformance test methods**

**Part 3: Test methods for air interface
communications at 13.56 MHz**



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
 - RFID Association of Australia
 - The University of Adelaide
 - GS1
-

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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 test methods for determining the conformance of radio frequency identification devices (tags and interrogators) for item management with the specifications given in the corresponding part of AS ISO/IEC 18000.

This Standard is identical with, and has been reproduced from ISO/IEC TR 18047-3:2004, *Information technology—Radio frequency identification device conformance test methods—Part 3: Test methods for air interface communications at 13,56 MHz*.

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 TR 18047’ 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:

<i>Reference to International Standard</i>	<i>Australian Standard</i>
ISO/IEC	AS ISO/IEC
18000 Information technology—Radio frequency identification for item management	18000 Information technology—Radio frequency identification for item management
18000-1 Part 1: Reference architecture and definition of parameters to be standardized	18000.1 Part 1: Reference architecture and definition of parameters to be standardized
18000-3 Part 3: Parameters for air interface communications at 13,56 MHz	18000.3 Part 3: Parameters for air interface communications at 13,56 MHz
19762 Information technology—Automatic identification and data capture (AIDC) techniques—Harmonized vocabulary	19762 Information technology—Automatic identification and data capture (AIDC) techniques—Harmonized vocabulary

The terms ‘normative’ and ‘informative’ are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

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INTRODUCTION

ISO/IEC 18000 defines the air interfaces for radio frequency identification (RFID) devices used in item management applications. Part 3 of ISO/IEC 18000 defines the air interface for these devices operating in the 13,56 MHz Industrial, Scientific, and Medical (ISM) band and used in these applications.

The purpose of ISO/IEC TR 18047 is to provide test methods for conformance with the various parts of ISO/IEC 18000.

Each part of ISO/IEC TR 18047 contains all measurements required to be made on a product in order to establish whether it conforms with the corresponding part of ISO/IEC 18000. For ISO/IEC TR 18047-3, each product needs to be assessed following either the procedure defined for Mode 1 or for Mode 2.

AUSTRALIAN STANDARD

Information technology—Radio frequency identification device conformance test methods**Part 3:****Test methods for air interface communications at 13.56 MHz****1 Scope**

This part of ISO/IEC TR 18047 defines test methods for determining the conformance of radio frequency identification devices (tags and interrogators) for item management with the specifications given in the corresponding part of ISO/IEC 18000, but does not apply to the testing of conformity with regulatory or similar requirements.

The test methods require only that the mandatory functions, and any optional functions which are implemented, be verified. This may, in appropriate circumstances, be supplemented by further, application-specific functionality criteria that are not available in the general case.

This part of ISO/IEC TR 18047 includes the following interrogator and tag conformance parameters:

- mode-specific conformance parameters including nominal values and tolerances; and
- parameters that apply directly affecting system functionality and inter-operability.

This part of ISO/IEC TR 18047 does not include the following:

- parameters that are already included in regulatory test requirements; and
- high-level data encoding conformance test parameters (these are specified in ISO/IEC 15962).

Clause 5 describes all necessary conformance tests, while clause 5.3 applies to Mode 1 products only and clause 5.4 applies to Mode 2 products only.

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 7810, *Identification cards — Physical characteristics*

ISO/IEC 18000-1, *Information technology — Radio frequency identification for item management — Part 1: Reference architecture and definition of parameters to be standardized*¹⁾

ISO/IEC 18000-3, *Information technology — Radio frequency identification for item management — Part 3: Parameters for air interface communications at 13,56 MHz*¹⁾

ISO/IEC 19762 (all parts), *Information technology — Automatic identification and data capture techniques — Harmonized vocabulary*¹⁾

1) To be published.