

Australian Standard<sup>®</sup>

**Information technology—Radio  
frequency identification for item  
management**

**Part 3: Parameters for air interface  
communications at 13.56 MHz**

**STANDARDS**  
Australia



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 physical layer, collision management system and protocol values for RFID systems for Item Identification operating at 13.56 MHz.

This Standard is identical with, and has been reproduced from ISO/IEC 18000-3:2004, *Information technology—Radio frequency identification for item management—Part 3: Parameters 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 18000’ should read ‘this Australian Standard’.
- (c) A full point substitutes for a comma when referring to a decimal mark.

References to International Standards should be replaced by reference to Australian or Australian/New Zealand Standards, as follows:

<i>Reference to International Standard</i>	<i>Australian Standard</i>
ISO/IEC	AS
15693 Identification cards—Contactless integrated circuit(s) cards—Vicinity cards	15693 Identification cards—Contactless integrated circuit(s) cards—Vicinity cards
15963 Information technology—Radio frequency identification for item management—Unique identification for RF tags	AS ISO/IEC 15963 Information technology—Radio frequency identification for item management—Unique identification for RF tags
18000-1 Information technology—Radio frequency identification for item management—Part 1: Reference architecture and definition of parameters to be standardized	18000.1 Information technology—Radio frequency identification for item management—Part 1: Reference architecture and definition of parameters to be standardized
19762 (all parts) Information technology—Automatic identification and data capture (AIDC) techniques—Harmonized vocabulary	19762 (all parts) Information technology—Automatic identification and data capture (AIDC) techniques—Harmonized vocabulary
ISO/IEC TR	AS ISO/IEC
18047.3 Information technology—Radio frequency identification device conformance test methods—Part 3: Test methods for air interface communications at 13,56 MHz	18047.3 Information technology—Radio frequency identification device conformance test methods—Part 3: Test methods for air interface communications at 13,56 MHz

Only international references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

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.

## CONTENTS

	<i>Page</i>
1	Scope..... 1
2	Conformance ..... 1
2.1	Claiming conformance ..... 1
3	Normative references ..... 1
4	Terms and definitions ..... 2
5	Symbols and abbreviated terms..... 2
6	Requirements: Physical layer, collision management system and protocol values for 13,56 MHz systems ..... 2
6.0	General and applicable to both Modes of this part of ISO/IEC 18000 ..... 2
6.0.1	Presentation as determined in ISO/IEC 18000-1 ..... 2
6.0.2	ISO/IEC 18000-3 Interoperability..... 2
6.0.3	ISO/IEC 18000-3 reader conformance/compliance ..... 3
6.0.4	ISO/IEC 18000-3 tag compliance. .... 3
6.0.5	Command structure and extensibility..... 3
6.0.6	Mandatory commands ..... 3
6.0.7	Optional commands..... 3
6.0.8	Custom commands..... 3
6.0.9	Proprietary commands ..... 3
6.1	Physical layer, collision management system and protocol for MODE 1 of this part of ISO/IEC 18000 ..... 4
6.1.1	Read/Write system ..... 4
6.1.2	Normative Aspects..... 4
6.1.3	Conformance and performance measurement aspect ..... 4
6.1.4	Physical Layer ..... 4
6.1.5	Protocol and collision management operating method..... 4
6.1.6	Commands..... 4
6.1.7	Parameter tables for interrogator to tag link..... 4
6.1.8	Parameter tables for tag to interrogator link..... 4
6.1.9	Protocol extension..... 4
6.1.10	Protocol extension- description of collision management method ..... 5
6.1.11	Protocol extension commands ..... 19
6.1.12	Air interface application layer ..... 29
6.2	MODE 2: Physical layer, collision management system and protocols for MODE 2 of this part of ISO/IEC 18000 ..... 30
6.2.1	Normative aspects: physical and media access control (MAC) parameters: interrogator to tag link ..... 30
6.2.2	Tag to interrogator link..... 32
6.2.3	Description of operating method ..... 35
6.2.4	Protocol parameters ..... 41
6.2.5	Description of protocol operating method ..... 41
6.2.6	Collision management parameters ..... 57
6.2.7	Description of collision management parameters operating method (informative)..... 57
6.2.8	Tag order sequencing..... 65
6.2.9	Commands..... 65
6.2.10	Air interface application layer..... 65
7	Marking of equipment..... 65

<b>8</b>	<b>Table of characteristic differences between the MODES specified in this part of ISO/IEC 18000 .....</b>	<b>66</b>
<b>Annex A</b>	<b>(normative) Phase jitter modulation (PJM).....</b>	<b>67</b>
<b>Annex B</b>	<b>(informative) Known possible interferences between the MODES determined in this part of ISO/IEC 18000 .....</b>	<b>71</b>
<b>Annex C</b>	<b>(informative) Interrogator pseudo-code for collision management (Mode 1) .....</b>	<b>72</b>
<b>Annex D</b>	<b>(informative) Cyclic Redundancy Check (CRC) (16 bit).....</b>	<b>73</b>
<b>D.1</b>	<b>The CRC error detection method.....</b>	<b>73</b>
<b>D.2</b>	<b>CRC calculation example .....</b>	<b>73</b>
<b>Annex E</b>	<b>(informative) Cyclic redundancy check (CRC) mode 2 (32 bit).....</b>	<b>75</b>
<b>E.1</b>	<b>The CRC 32 error detection method.....</b>	<b>75</b>
<b>E.2</b>	<b>CRC 32 calculation example .....</b>	<b>75</b>
<b>E.3</b>	<b>Practical example of CRC 32 calculation.....</b>	<b>77</b>
<b>Annex F</b>	<b>(informative) Mode 1 IC reference.....</b>	<b>78</b>
<b>Annex G</b>	<b>(informative) A description of ISO/IEC 15693 Protocol as used in MODE .....</b>	<b>79</b>
<b>G.1</b>	<b>Parameter tables for interrogator to tag link.....</b>	<b>79</b>
<b>G.2</b>	<b>Parameter tables for tag to interrogator link.....</b>	<b>84</b>
<b>G.3</b>	<b>Description of operating method.....</b>	<b>90</b>
<b>G.3.1</b>	<b>Communications signal interface interrogator to tag .....</b>	<b>90</b>
<b>G.3.2</b>	<b>Modulation .....</b>	<b>90</b>
<b>G.3.3</b>	<b>Data rate and data coding .....</b>	<b>91</b>
<b>G.3.4</b>	<b>Interrogator to tag frames .....</b>	<b>94</b>
<b>G.3.5</b>	<b>Communications signal interface tag to interrogator .....</b>	<b>95</b>
<b>G.4</b>	<b>Protocol parameters .....</b>	<b>99</b>
<b>G.4.1</b>	<b>Table of protocol parameters.....</b>	<b>99</b>
<b>G.5</b>	<b>Description of protocol operating method .....</b>	<b>105</b>
<b>G.5.1</b>	<b>Definition of data elements .....</b>	<b>105</b>
<b>G.5.2</b>	<b>Data storage format identifier (DSFID) .....</b>	<b>107</b>
<b>G.5.3</b>	<b>CRC.....</b>	<b>107</b>
<b>G.5.4</b>	<b>Overall protocol description .....</b>	<b>108</b>
<b>G.5.5</b>	<b>Modes .....</b>	<b>109</b>
<b>G.5.6</b>	<b>Response format.....</b>	<b>111</b>
<b>G.5.7</b>	<b>RF tag states .....</b>	<b>113</b>
<b>G.6</b>	<b>Collision management .....</b>	<b>115</b>
<b>G.7</b>	<b>Description of collision management operating method (Informative).....</b>	<b>120</b>
<b>G.7.1</b>	<b>Request parameters.....</b>	<b>120</b>
<b>G.7.2</b>	<b>Request processing by the RF tag .....</b>	<b>121</b>
<b>G.7.3</b>	<b>Explanation of a collision management sequence .....</b>	<b>123</b>
<b>G.7.4</b>	<b>Timing specifications.....</b>	<b>125</b>
<b>G.8</b>	<b>Commands .....</b>	<b>127</b>
<b>G.8.1</b>	<b>Command types.....</b>	<b>127</b>
<b>G.8.2</b>	<b>Command codes.....</b>	<b>128</b>
<b>G.8.3</b>	<b>Mandatory commands .....</b>	<b>129</b>
<b>G.8.4</b>	<b>Optional commands.....</b>	<b>130</b>
<b>G.8.5</b>	<b>Custom commands .....</b>	<b>143</b>
<b>G.8.6</b>	<b>Proprietary commands .....</b>	<b>144</b>
	<b>Bibliography.....</b>	<b>145</b>

## INTRODUCTION

ISO/IEC 18000 has been developed by ISO/IEC JTC 1, SC 31, WG 4, *Radio frequency identification for item management*, in order to provide a framework to define common communications protocols 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.

This part of ISO/IEC 18000 has been prepared in accordance with the requirements determined in ISO/IEC 18000-1.

ISO/IEC 18000-1 provides explanation of the concepts behind this part of ISO/IEC 18000.

This part of ISO/IEC 18000 has 2 MODES of operation, intended to address different applications. Clause 8 of this part of ISO/IEC 18000 summarises the differences between MODE characteristics. The detailed technical differences between the modes are shown in the parameter tables.

This part of ISO/IEC 18000 relates solely to systems operating at 13,56 MHz.

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AUSTRALIAN STANDARD

# Information technology — Radio frequency identification for item management —

## Part 3: Parameters for air interface communications at 13,56 MHz

### 1 Scope

**1.1** This part of ISO/IEC 18000 provides physical layer, collision management system and protocol values for RFID systems for Item Identification operating at 13,56 MHz in accordance with the requirements of ISO/IEC 18000-1

**1.2** This part of ISO/IEC 18000 provides definitions for systems for each MODE determined in Clause 6 below.

**1.3** This part of ISO/IEC 18000 defines 2 non interfering MODES.

The MODES are NOT interoperable.

The MODES, whilst not interoperable, are non interfering.

### 2 Conformance

#### 2.1 Claiming conformance

In order to claim conformance with this part of ISO/IEC 18000 it is necessary to comply to all of the relevant clauses of this part of ISO/IEC 18000 except those marked 'optional' and it is also necessary to operate within the local national radio regulations (which may require further restrictions).

Relevant conformance test methods are defined in ISO/IEC TR 18047-3.

### 3 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 7816-6, *Identification cards — Integrated circuit cards — Part 6: Interindustry data elements for interchange*

ISO/IEC 15693 (all parts), *Identification cards — Contactless integrated circuit(s) cards — Vicinity cards*

ISO/IEC 15963, *Information technology — Radio frequency identification for item management — Unique identification for RF tags*

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

ISO/IEC TR 18047-3, *Information technology — Radio frequency identification device conformance test methods — Part 3: Test methods for air interface communications at 13,56 MHz*