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

GB/T 41734.5-2024

**Radio frequency identification of animals - Part 5: Procedure for
testing the capability of RFID transceivers of reading GB/T
20563 and GB/T 22334 transponders**

动物射频识别 第5部分： 射频识别读写器读取GB/T 20563和GB/T 22334射频识别标签的能力测试程序

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

This document is Part 5 of GB/T 41734 "Radio Frequency Identification of Animals". GB/T 41734 has published the following parts.

Part 1: Conformity assessment of RFID tags with GB/T 20563 and GB/T 22334 (including issuance and use);

Part 2: Conformity assessment of RFID readers and writers with GB/T 20563 and GB/T 22334;

Part 3: Performance evaluation of radio frequency identification tags in accordance with GB/T 20563 and GB/T 22334;

Part 4: Performance evaluation of RFID readers and writers in accordance with GB/T 20563 and GB/T 22334;

Part 5: Test procedures for the ability of RFID readers to read GB/T 20563 and GB/T 22334 RFID tags;

Part 6: Format of animal identification information (visual display/data transmission); -Part 7: GB/T 22334 Synchronization between identification systems. -this document is modified to adopt ISO 24631-5:2014 "Radio Frequency Identification of Animals Part 5: Radio Frequency Identification Readers and Writers Reading ISO 11784 and ISO 11785 Capability Test Procedure for Radio Frequency Identification Tags.

Compared with ISO 24631-5:2014, this document has the following structural adjustments.

Chapter 2 corresponds to Chapter 3 of ISO 24631-5:2014; -Chapter 3 corresponds to Chapter 4 of ISO 24631-5:2014; -Chapter 4 corresponds to Chapter 5 of ISO 24631-5:2014; -Chapter 5 corresponds to Chapter 2 of ISO 24631-5:2014; -7.2~7.6 of Chapter 7 correspond to 7.1~7.5 of ISO 24631-5:2014. -the technical differences between this document and ISO 24631-5:2014 and their reasons are as follows.

The scope of application of the standard has been changed to adapt to the development of the industry in my country (see Chapter 1); -ISO 11784:1996 has been replaced by the normative reference GB/T 20563 (see Chapter 1, 3.2, Chapter 5, 6.1, 6.12, 7.1, 7.4, 7.5.1, Appendix B), to adapt to my country's technical conditions and increase operability;

ISO 11785:1996 has been replaced by the normatively referenced GB/T 22334 (see Chapter 1, 3.2, Chapter 5, 6.1, 6.12, 7.1, 7.4, 7.5.1, Appendix B), to adapt to my country's technical conditions and increase operability;

Added normative reference GB/T 41734.1 (see Chapter 3 and Chapter 4) to adapt to my country's technical conditions and increase operability Sexuality;

Deleted the normative references to ISO 24631-1:2009 (see 4.6 and 4.12 of ISO 24631-5:2014) and ISO 3166-1 (See 4.2 of ISO 24631-5:2014) to adapt to my country's technical conditions and increase operability;

The terms "country code", "ISO 11784 and ISO 11785 RFID reader/writer", "manufacturer", and "manufacturer code" have been deleted.

Code", "RA approved testing center", "RA approved RFID tag", "Registration body", "RFID reader/writer" "Radio Frequency Identification Tag" has been deleted to meet the requirements of my country's standard writing (see Chapter 4 of ISO 24631-5:2014).

Abbreviations CRC, FDX-B, HDX, MFC, RFID (see Chapter 5 of ISO 24631-5:2014) to meet the requirements of my country's standards Standard writing requirements.

The following editorial changes were made to this document.

To coordinate with the existing standards, the name of the standard is changed to "Radio Frequency Identification of Animals - Part 5: Reading of Radio Frequency Identification Readers and Writers" GB/T 20563 and GB/T 22334 Capability Test Procedures for Radio Frequency Identification Tags;

ISO 24631-2 (see Chapter 1) is replaced by the informative reference GB/T 41734.2; -to coordinate with existing standards, the term "approved RFID tag" is changed to "registered reference number", corresponding to the English "ap "proval reference number" is changed to "registration reference number" (see 3.1);

Change the boldface part of Chapter 7 into a note (see Note to 7.1); -the contents of Table 1 in ISO 11784:1996 shall be directly incorporated into Table 1 of this document; -Adjusted the order of reference numbers of Figures 1 and 2.-

Introduction

GB/T 41734 mainly involves the consistency of RFID tags and RFID readers. Currently, RFID tags used for animal identification the main types are injection-type RFID tags, including. electronic ear tag RFID tags, electronic rumen pill RFID tags, leg rings RFID tags. GB/T 20563 specifies the code structure for animal RFID, and GB/T 22334 specifies the technology for animal RFID.

GB/T 41734 mainly solves the consistency of RFID tags and RFID readers with GB/T 20563 and GB/T 22334.

Evaluation, performance assessment and other issues.

GB/T 41734 is planned to consist of 7 parts.

Part 1: Conformity assessment of RFID tags with GB/T 20563 and GB/T 22334 (including issuance and the purpose is to provide a method for evaluating the consistency of RFID tags with GB/T 20563 and GB/T 22334.

Part 2: Conformity assessment of RFID readers and writers with GB/T 20563 and GB/T 22334. The purpose is to provide Method for evaluating the consistency of readers and writers with GB/T 20563 and GB/T 22334.

Part 3: Performance evaluation of RFID tags in accordance with GB/T 20563 and GB/T 22334.

GB/T 20563 and GB/T 22334 Performance evaluation methods for radio frequency identification tags.

Part 4: Performance evaluation of RFID readers and writers in accordance with GB/T 20563 and GB/T 22334.

GB/T 20563 and GB/T 22334 Performance evaluation methods for RFID readers and

writers.

Part 5: Test procedures for the ability of RFID readers to read GB/T 20563 and GB/T 22334 RFID tags.

The purpose is to provide a test procedure for the ability of RFID readers to read RFID tags of GB/T 20563 and GB/T 22334.

Part 6: Animal identification information format (visual display/data transmission). The purpose is to standardize the display/transmission of animal identification information.

Input data format.

Part 7: Synchronization between GB/T 22334 identification systems. The purpose is to provide synchronization between GB/T 22334 identification systems method.

Radio Frequency Identification of Animals Part 5: Radio Frequency Identification the reader reads GB/T 20563 and GB/T 22334 Capability Testing Procedure for RFID Tags

1 Scope

This document establishes the test rules for the ability of RFID readers and writers to read RFID tags in accordance with GB/T 20563 and GB/T 22334.

and procedures, for applying for RFID reader/writer testing registration, and related rights and obligations.

This document is not applicable to wireless synchronization testing of mobile RFID readers, nor is it applicable to evaluating the wired synchronization of fixed RFID readers.

Synchronous testing.

This document is different from GB/T 41734.2, which is intended to test the necessary Function.

The tests in this document are intended for cost-effective asynchronous RFID readers that are capable of reading RFID tags that comply with GB/T 20563 and GB/T 22334 but without synchronization capability, and does not need to support dual adaptive protocol, the activation field frequency precision the degree requirements have been reduced.

The test procedures specified in this document are applicable to RFID readers used in animal husbandry.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date