
**Radiofrequency identification
of animals —**

**Part 4:
Evaluation of performance of RFID
transceivers conforming with ISO 11784
and ISO 11785**

Identification des animaux par radiofréquence —

*Partie 4: Évaluation de la performance des émetteurs-récepteurs RFID
conformes à l'ISO 11784 et à l'ISO 11785*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 24631-4 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 19, *Agricultural electronics*.

ISO 24631 consists of the following parts, under the general title *Radiofrequency identification of animals*:

- *Part 1: Evaluation of conformance of RFID transponders with ISO 11784 and ISO 11785 (including granting and use of a manufacturer code)*
- *Part 2: Evaluation of conformance of RFID transceivers with ISO 11784 and ISO 11785*
- *Part 3: Evaluation of performance of RFID transponders conforming with ISO 11784 and ISO 11785*
- *Part 4: Evaluation of performance of RFID transceivers conforming with ISO 11784 and ISO 11785*

Introduction

ISO has appointed ICAR (International Committee for Animal Recording) as the registration authority (RA) competent to register manufacturer codes used in the radiofrequency identification (RFID) of animals in accordance with ISO 11784 and ISO 11785.

ISO 24631 defines means, based upon ICAR test procedures^[1], for evaluating and verifying both the conformance and performance of RFID devices in respect of ISO 11784 and ISO 11785. Only those results emanating from RA-approved test centres are recognized.

This part of ISO 24631 deals with the performance of RFID transceivers. Measurements are made using transponder emulation circuits, ensuring that the transceiver testing is always performed against the same, known stimuli.

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Radiofrequency identification of animals —

Part 4:

Evaluation of performance of RFID transceivers conforming with ISO 11784 and ISO 11785

1 Scope

This part of ISO 24631 provides the means of evaluating the performance of ISO 11784- and ISO 11785-conformant RFID (radiofrequency identification) transceivers used in the individual identification of animals.

The test procedures specified in this part of ISO 24631 are recognized by the FECAVA (Federation of European Companion Animals Veterinary Association) and WSAVA (World Small Animal Veterinarian Association) and as such can be applied also to companion animals.

2 Conformance

Test centres approved by the registration authority (RA) shall perform transceiver testing using the procedures specified in Clause 7 and shall report the test results to the RA. These tests are in accordance with the technical requirements of ISO 11784 and ISO 11785. The manufacturer shall apply for transceiver testing by completing and submitting to the RA the application form provided in Annex A. Only transceivers that have been issued an approval reference number by the RA (see ISO 24631-2) may be tested. A transceiver test report shall be accorded to a manufacturer whose product has been tested as per Clause 7.

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 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes*

ISO 11784:1996, *Radio frequency identification of animals — Code structure*

ISO 11785:1996, *Radio frequency identification of animals — Technical concept*

ISO 24631-1:2009, *Radiofrequency identification of animals — Part 1: Evaluation of conformance of RFID transponders with ISO 11784 and ISO 11785 (including granting and use of a manufacturer code)*

4 Terms and definitions

For the purposes of this document, the following terms and definitions apply.