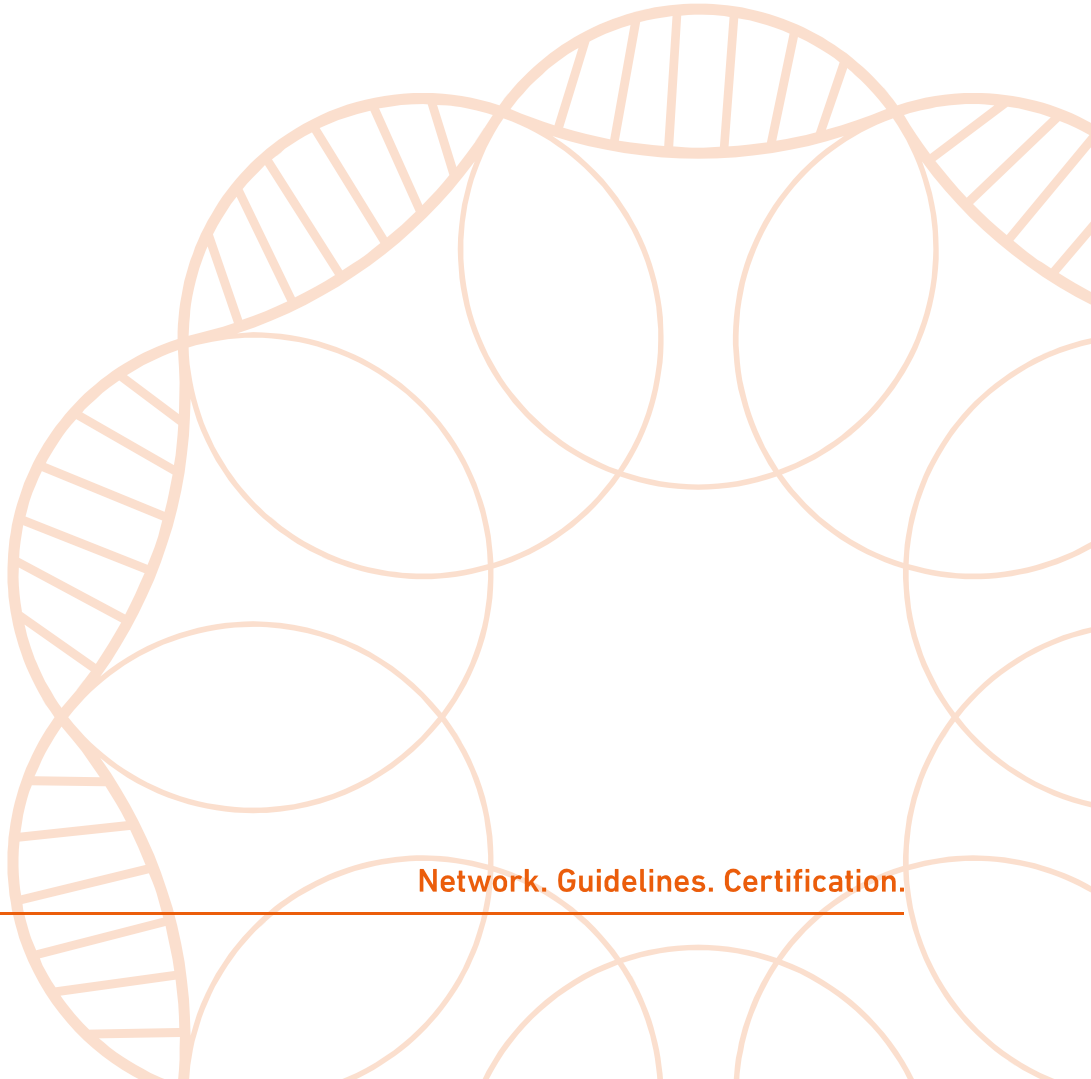
THE GLOBAL STANDARD
FOR LIVESTOCK DATA

Procedure 1 of Section 10 of ICAR Guidelines - Conformance of Transponders with ISO Standards

Conformance of Transponders with ISO Standards

Version February, 2018



Network. Guidelines. Certification.

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Change Summary

Date of Change	Nature of Change
August 2017	Changed procedure title to 'Conformance of Transponders with ISO Standards'
August 2017	Added specification about prohibition of mixing technologies in the same batch of submitted samples (section 4)
September 2017	Applied template, standardised links.
October 2017	Updated version to October. Corrected cross references. Minor edits to section headings.
February 2018	On Saturday 10th February, changes approved by the ICAR General Assembly in Auckland, New Zealand.

1 Foreword

ISO 11785 defines the test protocols for evaluating and verifying both the conformance and performance of RFID devices and ISO 11784 the code structure. Only those results emanating from accredited and RA-approved test centres are recognized.

2 Introduction

ISO 11784 and ISO 11785 cover four RFID device types used for animal identification:

a. Injectables: a small transponder able to be injected into an animal's body. The transponder is encapsulated in a biocompatible and non porous material, e.g. glass.

b. Ear tag: a plastic covered transponder able to be fixed to an animal's ear using a locking mechanism which prevents the device from being removed without damaging it and rendering it unusable.

c. Ruminal bolus: a transponder placed into a high specific gravity container orally administered to a ruminant animal where the device remains in the stomach of the animal due its high specific gravity which prevents its passing through the animal's digestive system.

d. Tag attachment: a transponder covered by a primary protection layer but without its own locking system and is used only as an attachment to a visual ear tag or to another means of external animal identification, e.g. leg tag, collar, etc.

The tests carried out by ICAR as RA are recognised by the Federation of European Companion Animals Veterinary Association (FECAVA) and WSAVA (World Small Animal Veterinarian Association) and as such can be applied to companion animals also.

The fee for all tests will be borne by the applicant.

3 References

ISO 11784	Agricultural equipment - Radio frequency identification of animals - Code structure
ISO 11785	Agricultural equipment - Radio frequency identification of animals - Technical concept
ISO 3166	Codes for the representation of names of countries and their subdivisions

The latest version of ISO Standards will always apply and these Standards can be downloaded from the ISO website (www.iso.org).

4 Procedures for verifying the ISO conformance of transponders

4.1 Application

A manufacturer can apply for:

a. A full test; or

b. A limited test; or

c. A listing update.

A. A full test is mandatory in the following cases:

a. When a non-RA registered manufacturer applies for a test.

b. When a RA registered manufacturer uses a new silicon chip (Integrated Circuit) or implements new technology (HDX or FDX-B) in the transponder;

c. When a RA registered manufacturer changes the coil technology (ferrite coils vs. air coils).

B. A limited test is applicable in the following cases:

a. When a RA registered manufacturer inserts an ICAR certified transponder into a different primary transponder package.

b. When a RA registered manufacturer uses the silicon chip of an ICAR certified transponder with different coil dimensions.

c. When a RA registered manufacturer inserts an ICAR certified transponder with its original primary packaging into a different secondary packaging, e.g. a glass transponder into a bolus or a glass transponder into an ear tag.

C. A listing update is applicable in the following case:

a. When a RA registered manufacturer intends to use an ICAR certified transponder without any modification. In this case the applicant must deliver a copy of the original test report along with a written confirmation from the ICAR registered manufacturer who originally submitted the transponder under question for certification by ICAR.

To apply for an ISO transponder conformance test the manufacturer has to complete the test application form given in Appendix A1 (Application for RFID transponder Conformance test (ISO 24631-1)) which is available here.

The completed application must be emailed in PDF format to the Service-ICAR secretariat. The email address of the Service-ICAR secretariat is: manufacturers@icar.org

The manufacturer has the right to choose their preferred ICAR accredited test centre. The manufacturer is required to send:

a. 50 transponders to the test centre for a full test, or

b. 10 transponders for a limited test, or

c. 10 transponders for a listing update.

The submitted transponders must have the ICAR test code of 999 or the existing manufacturer's code for a full test. The manufacturer can freely choose the transponder codes, but duplicate codes are not allowed. The manufacturer must provide a list of the transponder codes in decimal format.

Every specimen in a batch submitted for RFID testing (ISO24631-1 and/or ISO24631-3) must contain identical internal electronic components (coil and other components). Mixing of technologies (integrated circuit, capacitors, coils) within a single batch is prohibited. Likewise, when an electronic identifier is approved by ICAR, based on the results of testing, all identifiers that are released for sale must contain the same components as the test specimens. If changes are made to an identifier model after approval, the test requirements of ISO24631-1 section 6.1 must be met.

The test centre will test the transponders for compliance with ISO 11784 and ISO 11785. All tested transponders must be readable by the laboratory reference transceiver. The codes read

by the laboratory reference transceiver must comply with ISO 11784 and the identification codes must be on the list of codes provided by the manufacturer.

The test centre will prepare a confidential report of the test results and will send the report to the Service-ICAR secretariat. For a limited test or a listing update, the test report will contain only a summary of the test results.

Service-ICAR will send the test report to the manufacturer and, in the case of a successful Conformance test result, an official ICAR letter of certification signed by the ICAR Chief Executive will also be sent to the manufacturer with a copy to the ISO/TC23/SC19/WG3 secretariat.

ICAR as RA issues a product code for each type of transponder successfully tested, including the listing update.

All electronic transponders submitted in an application will be kept by the test centre as reference transponders.

ICAR as RA maintains a public register on the ICAR website which lists all products registered and ICAR certified. A photograph of the certified device is included in the listing.

4.2 Conditions for the right to use an ICAR certificate for transponders (conformance test)

Upon successful completion of the Conformance test, ICAR will grant a device certificate valid for five years and a certification reference number.

The ICAR certification of a transponder confirms the transponder's compliance with the code structure and the technical concepts given in ISO 11784 and ISO 11785.

The manufacturer must maintain a database register of all ICAR certified transponders sold. The manufacturer must require the initial purchasers of their ICAR certified transponders to also maintain a database register of their purchased product and require all subsequent purchasers to do the same until the transponder is applied to an animal.

The ICAR certificate is valid only for the transponder successfully tested and certified by ICAR. A manufacturer must not utilise the ICAR certificate and / or the certification reference number for a transponder:

a. Which is not manufactured by them; and / or

b. Which does not comply in all respects with the ICAR certificate and the certification reference number, including (but not limited to):

   - Maintaining identical packaging (both primary and secondary) of the certified transponder.
   - Maintaining identical technology and manufacturer of the certified transponder.
   - Maintaining the identical transponder to the certified transponder.

c. Which utilises the manufacturer code of another manufacturer;

d. Which is supplied to or intended to be supplied to a person ("the receiver") who will market the transponder as if manufactured by them, unless:

   - The receiver has obtained ICAR registration under this process; and
   - The transponder bears either the shared manufacturer code or the unshared manufacturer code of the receiver.

Once the ICAR certification has been granted, the manufacturer will be responsible to:

a. Keep an accurate and detailed log of all changes to their product and this log must be available to ICAR upon request. This log must include details of in-house performance measurements and Quality Assurance testing showing the amended product has maintained or enhanced its quality and performance.

b. Submit the product for re-certification before the expiration of its current ICAR certification. The manufacturer must submit this product no earlier than 6 months before the expiration of the certificate and no later than 5 months before the expiration of the certificate.

c. Understand that ICAR may take sample products from the marketplace and test its conformance against the conformance of the device the manufacturer originally submitted should ICAR suspect a breach of the signed ICAR Code of Conduct or a product change that has not been subjected to the tests outlined in this document - Procedure 1, Section 10 'Conformance of Transponders with ISO standards'.

Should the manufacturer fail to meet any or all of the above conditions for the use of the ICAR certificate, actions may be taken by ICAR in its role as Registration Authority for ISO according to the ISO standard 24631-1. .

In cases of disputes regarding the conditions listed above or the use of an ICAR certificate, the decision of ICAR as RA will be binding.

ICAR as RA will distribute an advice notice regarding any manufacturer that distributes transponders in conflict with the certificate procedure.