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Radiofrequency identification of animals — Advanced transponders —

Part 3: Applications

Identification des animaux par radiofréquence — Transpondeurs évolués —

Partie 3: Applications

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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A list of all parts in the ISO 14223 series can be found on the ISO website.

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Introduction

This document specifies the applications of the radio frequency (RF) system for advanced transponders for animal identification. The technical concept of advanced transponders for animal identification described is based upon the principle of radio frequency identification (RFID) and is an extension of the standards ISO 11784 and ISO 11785. Apart from the transmission of the (unique) identification code of animals, this document (ISO 14223-3) defines the access mode, data format, data content and optional features of the transponder with extended memory capabilities. ISO 14223 consists of three parts.

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Radiofrequency identification of animals — Advanced transponders —

Part 3: Applications

1 Scope

This document describes the information that is stored in the advanced transponder memory, its format and the procedures for accessing such information.

This document defines two parts of memory:

a) the fixed part (mandatory):

   1) ISO 11785 data field;

   2) Data_Config field;

b) the user part (optional):

   1) field of fixed allocation for defined data;

   2) uses an Object Identifier for data field separation in order to have maximum flexibility for future requirements.

2 Normative references

The following documents are referred to in the text in such way that some or all of their content constitutes requirements 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 11784, *Radio frequency identification of animals — Code structure*

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

ISO 14223-1, *Radiofrequency identification of animals — Advanced transponders — Part 1: Air interface*

ISO 14223-2, *Radiofrequency identification of animals — Advanced transponders — Part 2: Code and command structure*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

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3.1
object
defined piece of data, definition, or specification which requires a name in order to identify its use in an instance of communication

3.2
object identifier
OID
value (distinguishable from all other such values) which is associated with a unique object

3.3
single access memory
SAM
section of the memory that has predefined data allocation

3.4
data dictionary memory
DDM
section of the memory, that contains information defined by object identifier

3.5
data format identifier
DFID
unique identifier with a unique set of fixed data items at fixed memory location, allowing fast data access

3.6
data storage format identifier
DSFID
code which indicates how the data is structured in the transponder memory according to ISO 14223-2

4 Abbreviated terms

AID	animal ID or Identification code: 64 bits of the identification telegram specified in ISO 11784 and ISO 11785
CRC	cyclic redundancy check
DDM	data dictionary memory
DFID	data format identifier
DSFID	data storage format identifier
FDX	full duplex
HDX	half duplex
LSB	least significant bit
MSB	most significant bit
NPA	number of parturitions
NOB	number of blocks
NOF	number of fields
NOP	number of pages
OID	object identifier
RA	registration authority
RFU	reserved for future use
SAM	single access memory
TLV	type length value

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