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Information Technology — Real Time Locating System (RTLS) Device Conformance Test Methods —

Part 61: Low rate pulse repetition frequency Ultra Wide Band (UWB) air interface

Technologies de l'information — Méthodes d'essai de conformité du dispositif des systèmes de localisation en temps réel (RTLS) —

Partie 61: Interface d'air ultra large à bas taux de bande de fréquence de répétition d'impulsion (UWB)

Reference number
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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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 document 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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword — Supplementary information.

The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, Subcommittee SC 31, *Automatic identification and data capture techniques*.

ISO/IEC 24769 consists of the following parts, under the general title *Information technology — Real-time locating systems (RTLS) device conformance test methods*:

— *Part 2: Test methods for air interface communication at 2,4 GHz*

— *Part 5: Test methods for chirp spread spectrum (CSS) at 2,4 GHz air interface*

— *Part 61: Low rate pulse repetition frequency Ultra Wide Band (UWB) air interface*

— *Part 62: High rate pulse repetition frequency Ultra Wide Band (UWB) air interface*

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Introduction

ISO/IEC 24730-61 defines the air interfaces and an application programming interface for Real Time Locating Systems (RTLS) devices used in asset management applications.

This International Standard contains all measurements required to be made on a product in order to establish whether it conforms to ISO/IEC 24730-61.

Test methods for measuring performance of equipment compliant with ISO/IEC 24730-61 are given in ISO/IEC 24770-61

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Information Technology — Real Time Locating System (RTLS) Device Conformance Test Methods —

Part 61: Low rate pulse repetition frequency Ultra Wide Band (UWB) air interface

1 Scope

This International Standard defines the test methods for determining the conformance of Ultra Wide Band real-time locating system (RTLS) tags with the specifications given in the corresponding parts of ISO/IEC 24730-61, but does not apply to the testing of conformity with regulatory or similar requirements.

The test methods require only that the mandatory functions, and any optional functions which are implemented, be verified. This may in appropriate circumstances, be supplemented by further, application specific functionality criteria that are not available to the general case.

Unless otherwise specified, the tests in this International Standard apply exclusively to RTLS tags defined in ISO/IEC 24730-61.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 19762-1, *Information technology — Automatic identification and data capture (AIDC) techniques — Harmonized vocabulary — Part 1: General terms relating to AIDC*

ISO/IEC 19762-3, *Information technology — Automatic identification and data capture (AIDC) techniques — Harmonized vocabulary — Part 3: Radio frequency identification (RFID)*

ISO/IEC 24730-61:2013, *Information technology — Real time locating systems (RTLS) — Part 61: Low rate pulse repetition frequency Ultra Wide Band (UWB) air interface*

3 Terms, definitions and abbreviated terms

For the purposes of this document, the terms and definitions given in ISO/IEC 19762-1, ISO/IEC 19762-3 and the following apply.

3.1 Terms and definitions

3.1.1
error vector magnitude
EVM
difference between the measured signal and a reference

Note 1 to entry: A reference is a perfectly modulated signal.

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