INTERNATIONAL STANDARD

ISO/IEC 24770-61

First edition
2015-10-01

Information technology — Real Time Locating System (RTLS) device performance test methods —

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

Technologies de l'information — Méthodes d'essai des performances 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
ISO/IEC 24770-61:2015(E)

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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*.

This first edition of ISO/IEC 24770-61:2015 cancels and replaces the first edition (ISO/IEC/TR 24770:2008), which has not been technically revised, but has been developed as an International Standard.

ISO/IEC 24770 consists of the following parts, under the general title *Information technology — Real-time locating systems (RTLS) device conformance test methods*:

— *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*

The following part is under preparation:

— *Part 5: Chirp Spread Spectrum (CSS) at 2,4 GHz air interface*

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Introduction

ISO/IEC 24730-61 and ISO/IEC 24730-1 define an air interface and an application programming interface for Real Time Locating Systems (RTLS) devices used in asset management applications.

This International Standard provides test methods for measuring performance of equipment compliant with ISO/IEC 24730-61.

ISO/IEC 24769-61 contains all measurements required to be made on a product in order to establish whether it conforms to the corresponding part of ISO/IEC 24730.

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Information technology — Real Time Locating System (RTLS) device performance 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 performance characteristics of Ultra Wide Band (UWB) real time locating system (RTLS) equipment including tags and readers which are applicable to the selection of equipment that conforms to ISO/IEC 24730-6 for specific applications. This International Standard does not apply to the testing in relation to regulatory or similar requirements.

The RTLS equipment performance parameters included in this International Standard only include the Ultra Wide Band (UWB) radio frequencies link between tags and readers. Unless otherwise specified, the tests in this International Standard apply exclusively to RTLS equipment defined in ISO/IEC 24730-6.

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*

ISO/IEC 24769-61, *Information technology — Real-time locating system (RTLS) device conformance test methods — Part 61: Test methods for air interface communication for Ultra Wide Band (UWB) air interface*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

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

3.2 Abbreviated terms

ARB arbitrary waveform generator

DUT device under test

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