SLOVENSKI STANDARD
SIST EN IEC 62657-3:2022

01-oktober-2022

Industrijska omrežja - Soobstoj brezžičnih sistemov - 3. del: Formalni opis samodejnega upravljanja soobstoja in programski napotki (IEC 62657-3:2022)

Industrial networks - Coexistence of wireless systems - Part 3: Formal description of the automated coexistence management and application guidance (IEC 62657-3:2022)

Industrielle Kommunikationsnetze - Koexistenz von Funksystemen - Teil 3: Formale Beschreibung des automatisierten Koexistenzmanagements und Anwendungsleitfaden (IEC 62657-3:2022)

Réseaux industriels - Coexistence des systèmes sans fil - Partie 3: Description formelle de la gestion automatisée de la coexistence et recommandations d'application(IEC 62657-3:2022)

Ta slovenski standard je istoveten z: **EN IEC 62657-3:2022**

ICS:

25.040.40	Merjenje in krmiljenje industrijskih postopkov	Industrial process measurement and control
35.110	Omreževanje	Networking

SIST EN IEC 62657-3:2022 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 62657-3

July 2022

ICS 25.040

English Version

Industrial networks - Coexistence of wireless systems - Part 3: Formal description of the automated coexistence management and application guidance (IEC 62657-3:2022)

Réseaux industriels - Coexistence des systèmes sans fil - Partie 3: Description formelle de la gestion automatisée de la coexistence et recommandations d'application (IEC 62657-3:2022)

Industrielle Kommunikationsnetze - Koexistenz von Funksystemen - Teil 3: Formale Beschreibung des automatisierten Koexistenzmanagements und Anwendungsleitfaden (IEC 62657-3:2022)

This European Standard was approved by CENELEC on 2022-07-04. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 65C/1165/FDIS, future edition 1 of IEC 62657-3, prepared by SC 65C "Industrial networks" of IEC/TC 65 "Industrial-process measurement, control and automation" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62657-3:2022.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2023-04-04
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2025-07-04

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

Any feedback and questions on this document should be directed to the users' national committee. A complete listing of these bodies can be found on the CENELEC website.

Endorsement notice

The text of the International Standard IEC 62657-3:2022 was approved by CENELEC as a European Standard without any modification.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a 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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 61784-3	-	Industrial communication networks - Profiles - Part 3: Functional safety fieldbuses - General rules and profile definitions	EN IEC 61784-3	-
IEC 62657-1	-	Industrial communication networks - Wireless communication networks - Part 1: Wireless communication requirements and spectrum considerations	EN 62657-1	-
IEC 62657-2	2022	Industrial communication networks - Coexistence of wireless systems - Part 2: Coexistence management	EN IEC 62657-2	2022
IEC 62657-4	2022	Industrial communication networks - Coexistence of wireless systems - Part 4: Coexistence management with central coordination of wireless applications	EN IEC 62657-4	2022

IEC 62657-3

Edition 1.0 2022-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Industrial networks – Coexistence of wireless systems – Part 3: Formal description of the automated coexistence management and application guidance

Réseaux industriels – Coexistence des systèmes sans fil – Partie 3: Description formelle de la gestion automatisée de la coexistence et recommandations d'application

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 25.040

ISBN 978-2-8322-0912-7

Warning! Make sure that you obtained this publication from an authorized distributor.
Attention! Veuillez vous assurer que vous avez obtenu cette publication via un distributeur agréé.

CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

_____

INDUSTRIAL NETWORKS – COEXISTENCE OF WIRELESS SYSTEMS –

Part 3: Formal description of the automated coexistence management and application guidance

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
6) All users should ensure that they have the latest edition of this publication.
7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

IEC 62657-3 has been prepared by subcommittee 65C: Industrial communication networks, of IEC technical committee 65: Industrial-process measurement, control and automation. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
65C/1165/FDIS	65C/1171/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 62657 series, published under the general title *Industrial networks – Coexistence of wireless systems*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The "colour inside" logo on the cover page of this document indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

The intended audience for the IEC 62657 series is shown in Table 1.

Table 1 – Audience of the IEC 62657 series

Audience	Part 1 Wireless requirements	Part 2 Coexistence management	Part 3 Architecture and use	Part 4 Central coordination
1. Regulator	✓	—	—	—
2. IA expert	✓	—	—	—
3. Plant owner	—	✓	✓	—
4. Device manufacture	—	✓	✓	✓
5. System integrator	✓	✓	✓	✓
Key: ✓ = applies especially to the audience #; — = should be read by everybody				

This document is aimed at plant owners that are operating industrial wireless solutions, manufacturers of industrial wireless devices, as well as wireless system integrators and operators.

Plant owners need to understand the nature of the coexistence state with respect to wireless automation systems. Also, they need to make sure that all impacts to the industrial wireless application systems represented by parameters are taken into account. This document provides them the information needed to understand coexistence management parameters and each relationship for a reliable plant operation.

Device manufacturers should provide quantitative parameters on their wireless device and system to manage the coexistence of the wireless industrial application based on IEC 62657-2. This document defines related parameters and interfaces of devices for automatic coexistence management.

System integrators should, in collaboration with the plant owner and device manufacturers, design, implement, and manage the wireless industrial automation systems throughout the plant lifecycle. This document provides essential parameters and interfaces for coexistence management for system integrators.

A consideration of this document is to outline the features of automated collaborative coexistence management to develop solutions with, for example, a central coordination point (CCP), with a software-defined networking approach for flexible use of frequency spectrum or using a global navigation satellite system (GNSS) for location-based use of frequency spectrum.

Figure 1 shows the relation between the parts of the IEC 62657 series.

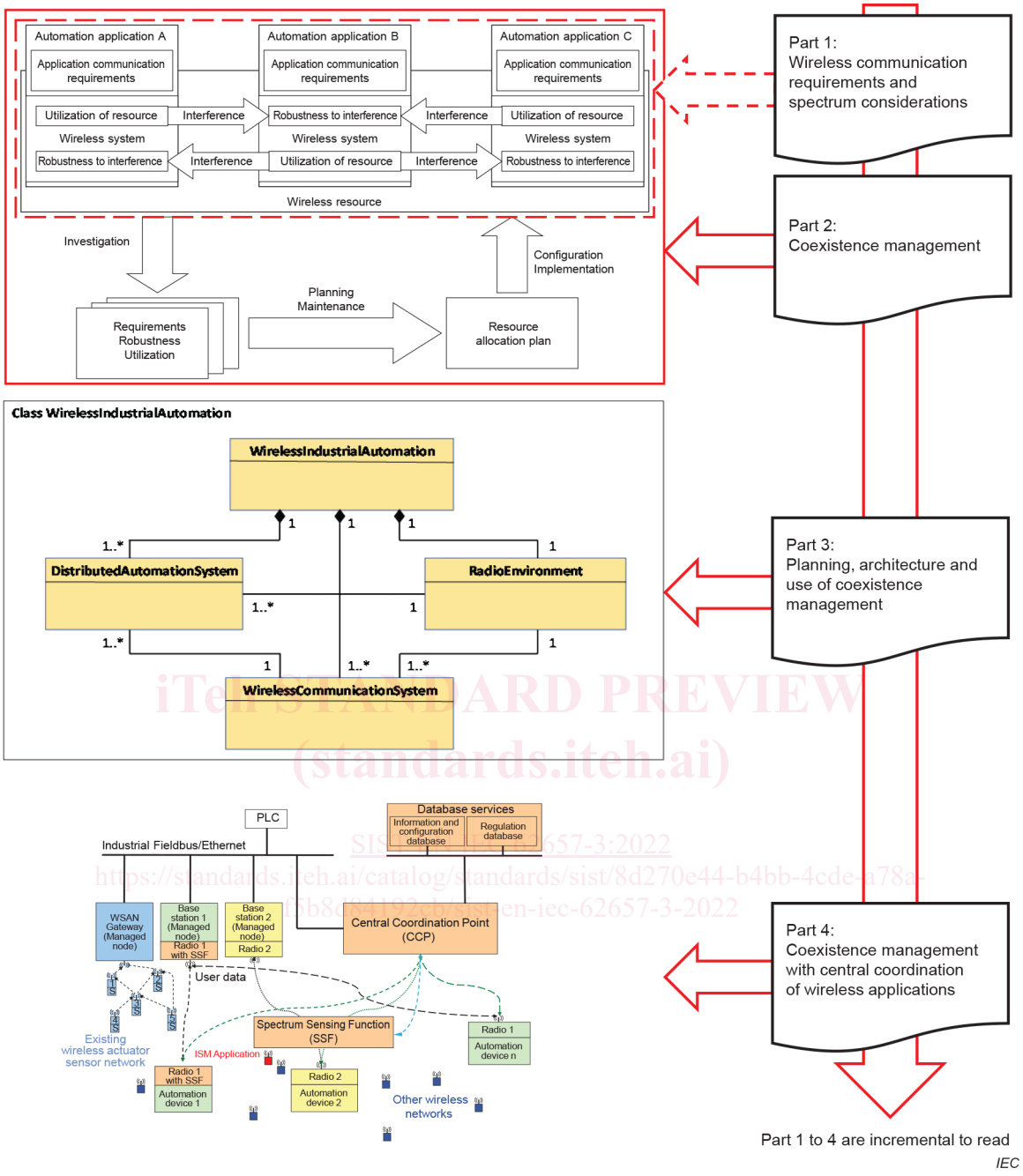

Figure 1 – Relation between the parts of the IEC 62657 series