SLOVENSKI STANDARD
SIST EN 62943:2018

01-marec-2018

Vidna svetloba svetilniškega sistema za multimedijske aplikacije (IEC 62943:2017)

Visible light beacon system for multimedia applications (IEC 62943:2017)

Signalsystem mit sichtbarem Licht für Multimedia-Anwendungen (IEC 62943:2017)

Système de balise de lumière visible pour applications multimédias (IEC 62943:2017)

Ta slovenski standard je istoveten z: **EN 62943:2017**

ICS:

33.160.60	Večpredstavni (multimedijski) sistemi in oprema za telekonference	Multimedia systems and teleconferencing equipment
35.100.10	Fizični sloj	Physical layer

SIST EN 62943:2018 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62943

June 2017

ICS 33.160.60; 35.100.10

English Version

Visible light beacon system for multimedia applications (IEC 62943:2017)

Système de balise de lumière visible pour applications multimédias
(IEC 62943:2017)

Signalsystem mit sichtbarem Licht für Multimedia-Anwendungen
(IEC 62943:2017)

This European Standard was approved by CENELEC on 2017-04-11. 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.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

European foreword

The text of document 100/2850/FDIS, future edition 1 of IEC 62943, prepared by IEC/TC 100 "Audio, video and multimedia systems and equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62943:2017.

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)	2018-01-11
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2020-04-11

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Endorsement notice

The text of the International Standard IEC 62943:2017 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated :

IEC 62471	NOTE	Harmonized as EN 62471.

IEC 62943

Edition 1.0 2017-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Visible light beacon system for multimedia applications

Système de balise de lumière visible pour applications multimédias

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

ICS 33.160.60; 35.100.10

ISBN 978-2-8322-4016-8

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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VISIBLE LIGHT BEACON SYSTEM FOR MULTIMEDIA APPLICATIONS

FOREWORD

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International Standard IEC 62943 has been prepared by IEC technical committee 100: Audio, video and multimedia systems and equipment.

The text of this standard is based on the following documents:

FDIS	Report on voting
100/2850/FDIS	100/2857/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

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

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

IMPORTANT – The 'colour inside' logo on the cover page of this publication 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.

VISIBLE LIGHT BEACON SYSTEM FOR MULTIMEDIA APPLICATIONS

1 Scope

This International Standard aims at establishing a unified standard concerning the lower communication layer common to multimedia applications, and does not deal with the upper communication layer which depends upon individual applications.

This document specifies a unidirectional visible light communication protocol using visible light, named "visible light beacon system for multimedia applications". This document does not specify the type of receivers. Dimming can be done by such methods as pulse width control or amplitude control, but the dimming is out of the scope of this document.

2 Normative references

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.

There are no normative references in this document.

3 Terms and definitions

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

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

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
visible light beacon transmitter
transmitter utilizing visible light beacon of visible light transmission standard

3.2
visible light beacon receiver
receiver utilizing visible light beacon of visible light transmission standard

3.3
visible light beacon system
unidirectional beacon system utilizing visible light as its carrier

3.4
ID resolution
resolution of information related to the ID

3.5
ID resolution server
server capable of ID resolution from inquired ID

3.6
carrier
signal consisting of a visible light in the case of visible light communication for transmission of information through (wired or wireless) communication media

3.7
modulation
processing and transforming of a carrier according to information in order to enable the information to be transmitted efficiently and correctly through communication media

3.8
frame
assembly of information continued for a certain length of time

3.9
preamble
signal to inform reception side about preparation and time position of start of the frame

3.10
communication protocol
set of rules decided for mutual communication between transmitters and receivers

3.11
encode
adapting the transmitted data array to be consistent with the transmission protocol

4 System outline

4.1 Interface points and protocol rules

The IF-a (interface point a) part in the visible light beacon system in Figure 1 shall be used.

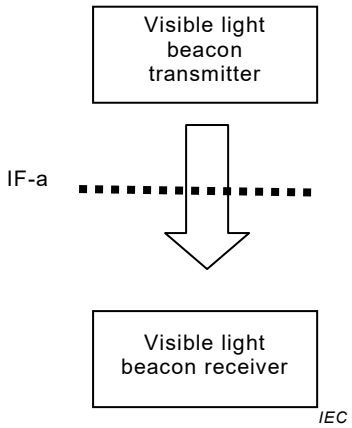

Figure 1 – Visible light beacon system for multimedia applications

Figures 2 a), b), c) and d) represent interface standard points between system structure figures and element systems of visible light beacon system for multimedia applications.

- Figure 2 a) is the whole structure (standard structure) of most common visible light beacon system for multimedia applications. The visible light beacon receiver sends the beacon received from a visible light beacon transmitter to an ID resolution server, obtains the address of the information providing server where target information exists, and obtains the target information from the information providing server using the address.