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**Izdelki s sestavi tiskanih plošč - Podatki o izdelovanju in prenos metodologije - 2-2. del: Posamezne zahteve za uvajanje opisovanja podatkov o izdelavi tiskanih vezij**

Printed board assembly products - Manufacturing description data and transfer methodology - Part 2-2: Sectional requirements for implementation of printed board fabrication data description

Leiterplatten - Beschreibung und Transfer von Daten - Teil 2-2: Anforderungen für die Anwendung von Dokumentationsdaten der Leiterplattenfertigung

Produits pour cartes imprimées équipées - Données descriptives de fabrication et méthodologie de transfert -- Partie 2-2: Exigences intermédiaires pour la mise en oeuvre de cartes imprimées - Description des données de fabrication

**Ta slovenski standard je istoveten z: EN 61182-2-2:2012**

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NORME EUROPÉENNE  
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**EN 61182-2-2**

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**Printed board assembly products -  
Manufacturing description data and transfer methodology -  
Part 2-2: Sectional requirements for implementation  
of printed board fabrication data description  
(IEC 61182-2-2:2012)**

Produits pour cartes imprimées équipées -  
Données descriptives de fabrication  
et méthodologie de transfert -  
Partie 2-2: Exigences intermédiaires pour  
la mise en oeuvre de cartes imprimées -  
Description des données de fabrication  
(CEI 61182-2-2:2012)

Leiterplatten -  
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Anwendung von Dokumentationsdaten  
der Leiterplattenfertigung  
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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 91/1025/FDIS, future edition 1 of IEC 61182-2-2, prepared by IEC/TC 91 "Electronics assembly technology" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61182-2-2:2012.

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) 2013-03-01
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-06-01

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## Endorsement notice

The text of the International Standard IEC 61182-2-2:2012 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61188-5-1	NOTE	Harmonised as EN 61188-5-1.
IEC 61188-5-2	NOTE	Harmonised as EN 61188-5-2.
IEC 61188-5-3	NOTE	Harmonised as EN 61188-5-3.
IEC 61188-5-4	NOTE	Harmonised as EN 61188-5-4.
IEC 61188-5-5	NOTE	Harmonised as EN 61188-5-5.
IEC 61188-5-6	NOTE	Harmonised as EN 61188-5-6.
IEC 61188-5-8	NOTE	Harmonised as EN 61188-5-8.
ISO 10303-210	NOTE	Harmonised as EN ISO 10303-210.

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60194	-	Printed board design, manufacture and assembly - Terms and definitions	EN 60194	-
IEC 61182-2	-	Printed board assembly products - Manufacturing description data and transfer methodology - Part 2: Generic requirements	-	-

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## NORME INTERNATIONALE



**Printed board assembly products – Manufacturing description data and transfer methodology –  
Part 2-2: Sectional requirements for implementation of printed board fabrication data description**

[SIST EN 61182-2-2:2012](https://standards.iteh.ai/catalog/standards/sist/9ae2428f-d483-491f-9a59-77585857010e/iec-61182-2-2:2012)

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**Produits pour cartes imprimées équipées – Données descriptives de fabrication et méthodologie de transfert –  
Partie 2-2: Exigences intermédiaires pour la mise en œuvre de cartes imprimées – Description des données de fabrication**

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**PRINTED BOARD ASSEMBLY PRODUCTS –  
MANUFACTURING DESCRIPTION DATA  
AND TRANSFER METHODOLOGY –**

**Part 2-2: Sectional requirements for implementation  
of printed board fabrication data description**

## FOREWORD

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International Standard IEC 61182-2-2 has been prepared by IEC technical committee 91: Electronics assembly technology.

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

FDIS	Report on voting
91/1025/FDIS	91/1038/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 web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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# PRINTED BOARD ASSEMBLY PRODUCTS – MANUFACTURING DESCRIPTION DATA AND TRANSFER METHODOLOGY –

## Part 2-2: Sectional requirements for implementation of printed board fabrication data description

### 1 Scope

This part of IEC 61182 provides the information on the manufacturing requirements used for fabricating printed boards. This standard determines the XML schema details, defined in the generic standard IEC 61182-2 and some of the sectional standards that are required to accomplish the focused tasks. When other standards are invoked, their requirements become a mandatory part of the fabrication details as defined in the IEC 61182-2.

The IEC 61182-2 contains all the requirements necessary to build an electronic product. The cardinality indicated in the IEC 61182-2 may be superseded by a restriction of an attribute (enumerated string ID) or indication of a requirement that is noted as being optional in the generic standard. However, this standard renders the requirement mandatory based on the supply chain communication need.

In order to assist the users of this standard, all the applicable XML schema elements that apply to the board fabrication function are listed in Annex A. The list is grouped by topics and shows the absolute path for the elements that pertain to the focus of this standard. If the parent element is not present no children are considered in the implementation either. However, all attributes identified for a particular element follow the cardinality of the IEC 61182-2, unless a restriction is stated in this standard.

### 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.

IEC 60194, *Printed board design, manufacture and assembly – Terms and definitions*

IEC 61182-2, *Printed board assembly products – Manufacturing description data and transfer methodology – Part 2: Generic requirements*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions of IEC 60194 as well as the following apply.

#### 3.1 data

intelligent information that may be used directly by machine in order to accomplish a particular manufacturing event

### 3.2 drawings

hard copy or un-intelligent documentation (e.g. PDF) to which all formatting criteria apply

### 3.3 printed circuit board PCB

composite of organic and inorganic material with external and internal wiring allowing electronic components to be mechanically supported and electrically connected

### 3.4 supplier

organization or company responsible for providing the goods and/or services required to produce an electronic product which includes physical items as well as intellectual/software characteristics and is documented as either user procurement, supplier data or contractual agreements

### 3.5 user

individual, organization, company or agency responsible for the procurement of electrical/electronic hardware, and having the authority to define the class of equipment and any variation or restrictions (i.e., the originator/custodian of the contract detailing these requirements)

### 3.6 via

opening in the dielectric layer(s) through which a conductor passes upwards or downwards to subsequent chip or package conductive layers for electrical interconnections or for heat transfer

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## 4 General principles

### 4.1 Requirements

The requirements of IEC 61182-2 are a mandatory part of this standard. The generic details specifically provide data related to design, printed board manufacturing, assembly and test.

The XML schema of the IEC 61182-2 consists of four major functions each of which have several children who then become new parent elements. Several of these major elements and their associated new parents are defined in other sectional specifications, thus the requirements of those standards are also a mandatory part of the board fabrication standard to the extent of their description and any restrictions contained in this standard.

Each of the standards and the elements defined therein has a specific function or task respectively, and although they may at times be used independently, they become an important addition to the requirements of the board fabrication descriptions. As such the following paragraphs provide the total requirements for the three types of board fabrication files that are supported by the principles of the IEC 61182-2.

Accordingly, the information interchange for the specific purpose of printed board fabrication is only possible if all the XML instances have been properly prepared for such a purpose.

### 4.2 Interpretation

"Shall", the emphatic form of the verb, is used throughout this standard whenever a requirement is intended to express a provision that is mandatory. Deviation from a "shall" requirement is not permitted, and compliance testing is required in order to demonstrate that the XML instances are correct according to the W3C directives and this standard. The XML