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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Printed board assemblies –
Part 1: Generic specification – Requirements for soldered electrical and electronic assemblies using surface mount and related assembly technologies

Ensembles de cartes imprimées –
Partie 1: Spécification générique – Exigences relatives aux ensembles électriques et électroniques brasés utilisant les techniques de montage en surface et associées

IEC 61191-1:2018-09(en-fr)

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CONTENTS

FOREWORD ... 6
1 Scope ... 8
2 Normative references ... 8
3 Terms and definitions ... 9
4 General requirements ... 10
  4.1 Order of precedence ... 10
    4.1.1 General remark ... 10
    4.1.2 Conflict ... 10
    4.1.3 Conformance documentation ... 10
  4.2 Interpretation of requirements ... 11
  4.3 Classification ... 11
  4.4 Defects and process indicators ... 11
  4.5 Process control requirements ... 12
  4.6 Requirements flowdown ... 12
  4.7 Physical designs ... 12
    4.7.1 New designs ... 12
    4.7.2 Existing designs ... 12
  4.8 Visual aids ... 12
  4.9 Proficiency of personnel ... 13
    4.9.1 Design proficiency ... 13
    4.9.2 Manufacturing proficiency ... 13
  4.10 Electrostatic discharge (ESD) ... 13
  4.11 Facilities ... 13
    4.11.1 General ... 13
    4.11.2 Environmental controls ... 13
    4.11.3 Temperature and humidity ... 13
    4.11.4 Lighting ... 14
    4.11.5 Field conditions ... 14
    4.11.6 Clean rooms ... 14
  4.12 Assembly tools and equipment ... 14
    4.12.1 General ... 14
    4.12.2 Process control ... 14
5 Requirements of materials ... 14
  5.1 Overview ... 14
  5.2 Solder ... 14
  5.3 Flux ... 14
  5.4 Solder paste ... 15
  5.5 Preform solder ... 15
  5.6 Adhesives ... 15
  5.7 Cleaning agents ... 15
    5.7.1 General ... 15
    5.7.2 Cleaning agents selection ... 15
  5.8 Polymeric coatings ... 16
    5.8.1 Solder resists and localized maskants ... 16
    5.8.2 Conformal coating and encapsulants ... 16
    5.8.3 Spacers (permanent and temporary) ... 16

5.9 Chemical strippers 16
5.10 Cleaning Agents 16
5.11 Heat shrinkable soldering devices 16
6 Components and printed board requirements 16
6.1 General 16
6.2 Solderability 17
6.2.1 Parts solderability 17
6.2.2 Reconditioning 17
6.2.3 Solderability testing of ceramic boards 17
6.3 Solderability maintenance 17
6.3.1 General 17
6.3.2 Preconditioning 17
6.3.3 Gold embrittlement of solder joints 17
6.3.4 Tinning of non-solderable parts 18
6.4 Solder purity maintenance 18
6.5 Lead preparation 19
6.5.1 General 19
6.5.2 Lead forming 19
6.5.3 Lead-forming limits 19
7 Assembly process requirements 20
7.1 Overview 20
7.2 Cleanliness 20
7.3 Part markings and reference designations 20
7.4 Solder connection contours 20
7.5 Moisture traps 20
7.6 Thermal dissipation 20
8 Assembly soldering requirements 20
8.1 General 20
8.1.1 Soldering process 20
8.1.2 Machine maintenance 21
8.1.3 Handling of parts 21
8.1.4 Preheating 21
8.1.5 Carriers 21
8.1.6 Hold down of surface mount leads 21
8.1.7 Heat application 21
8.1.8 Cooling 21
8.2 Reflow soldering 21
8.2.1 Requirements 21
8.2.2 Process development for reflow soldering 22
8.2.3 Flux application 22
8.2.4 Solder application 22
8.3 Manual/hand soldering 23
8.3.1 Non-reflow manual soldering 23
8.3.2 Reflow manual soldering 23
9 Cleanliness and residue requirements 24
9.1 General 24
9.2 Qualified cleaning/manufacturing process 24
9.2.1 General 24

9.2.2 Cleaning designator 25
9.2.3 Upper specification limit 25
9.3 Visual requirements 25
9.4 Correlation of ionic testers 26
9.5 Non-ionic residues 26
9.6 SIR testing 26
10 Assembly requirements 26
10.1 General 26
10.2 Acceptance requirements 26
10.2.1 Process control 26
10.2.2 Corrective action limits 27
10.2.3 Control limit determination 27
10.3 General assembly requirements 27
10.3.1 Assembly integrity 27
10.3.2 Assembly damage 27
10.3.3 Markings 28
10.3.4 Flatness (bow and twist) 28
10.3.5 Solder connection 28
10.3.6 Interfacial connections 30
11 Coating and encapsulation 30
11.1 Conformal coating 30
11.1.1 Coating instructions 30
11.1.2 Application 30
11.1.3 Performance requirements 31
11.1.4 Rework of conformal coating 32
11.1.5 Conformal coating inspection 32
11.2 Encapsulation 32
11.2.1 Encapsulation instructions 32
11.2.2 Application 32
11.2.3 Performance requirements 33
11.2.4 Rework of encapsulant material 33
11.2.5 Encapsulant inspection 33
12 Rework and repair 33
12.1 Rework of unsatisfactorily soldered electrical and electronic assemblies 33
12.2 Repair 34
12.3 Post rework/repair cleaning 34
13 Product quality assurance 35
13.1 System requirements 35
13.2 Inspection methodology 35
13.2.1 Verification inspection 35
13.2.2 Visual inspection 35
13.2.3 Sampling inspection 36
13.3 Process control 36
13.3.1 System details 36
13.3.2 Defect reduction 36
13.3.3 Variance reduction 37
14 Other requirements 37
14.1 Health and safety 37

- 14.2 Special manufacturing requirements ... 37
  - 14.2.1 Manufacture of devices incorporating magnetic windings ... 37
  - 14.2.2 High-frequency applications ... 37
  - 14.2.3 High-voltage or high-power applications ... 37
- 14.3 Guidance on requirement flowdown ... 37

15 Ordering data ... 37

Annex A (normative) Requirements for soldering tools and equipment ... 39

- A.1 Requirements for tools and equipment ... 39
- A.2 Abrasives ... 39
- A.3 Benchtop and hand-soldering systems ... 39
- A.4 Soldering iron holders ... 40
- A.5 Wiping pads ... 40
- A.6 Soldering guns ... 40
- A.7 Solder pots ... 40
- A.8 Process control ... 40

Annex B (normative) Quality assessment ... 41

- B.1 Process control (PC) ... 41
- B.2 Reduction of quality conformance testing ... 41
- B.3 Audit plan ... 42

Bibliography ... 43

Figure 1 – Solder contact angle ... 29

Figure 2 – Solder wetting of plated through-holes without leads ... 30

Figure 3 – Coating conditions ... 31

Table 1 – Solder contamination limits; maximum contaminant limit (percentage by weight) ... 19

Table 2 – Designation of surfaces to be cleaned ... 25

Table 3 – Residue testing for process control ... 25

Table 4 – Maximum acceptable rosin flux residues ... 26

Table 5 – Electrical and electronic assembly defects ... 34

Table 6 – Magnification requirements ... 35

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PRINTED BOARD ASSEMBLIES –

Part 1: Generic specification – Requirements for soldered electrical and electronic assemblies using surface mount and related assembly technologies

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International Standard IEC 61191-1 has been prepared by IEC technical committee 91: Electronics assembly technology.

This third edition cancels and replaces the second edition published in 2013. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) the requirements have been updated to be compliant with the acceptance criteria in IPC-A-610F;

b) the term "assembly drawing" has been changed to "assembly documentation" throughout;

c) references to IEC standards have been corrected;

d) Clause 9 was completely rewritten;

e) Annex B was removed because there are already procedures for circuit board assemblies.

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

CDV	Report on voting
91/1481/CDV	91/1510/RVC

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

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

A list of all parts of IEC 61191 series, published under the general title *Printed board assemblies*, can be found in 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

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- amended.

PRINTED BOARD ASSEMBLIES –

Part 1: Generic specification – Requirements for soldered electrical and electronic assemblies using surface mount and related assembly technologies

1 Scope

This part of IEC 61191 prescribes requirements for materials, methods and verification criteria for producing quality soldered interconnections and assemblies using surface mount and related assembly technologies. This part of IEC 61191 also includes recommendations for good manufacturing processes.

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.

IEC 60068-2-20, *Environmental testing – Part 2-20: Tests – Test T: Test methods for solderability and resistance to soldering heat of devices with leads*

IEC 60068-2-58, *Environmental testing – Part 2-58: Tests – Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)*

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

IEC 60721-3-1, *Classification of environmental conditions – Part 3: Classification of groups of environmental parameters and their severities – Storage*

IEC 61189-1, *Test methods for electrical materials, interconnection structures and assemblies – Part 1: General test methods and methodology*

IEC 61189-3, *Test methods for electrical materials, printed boards and other interconnection structures and assemblies – Part 3: Test methods for interconnection structures (printed boards)*

IEC 61190-1-1, *Attachment materials for electronic assembly – Part 1-1: Requirements for soldering fluxes for high-quality interconnections in electronics assembly*

IEC 61190-1-3, *Attachment materials for electronic assembly – Part 1-3: Requirements for electronic grade solder alloys and fluxed and non-fluxed solid solders for electronic soldering applications*

IEC 61191-2, *Printed board assemblies – Part 2: Sectional specification – Requirements for surface mount soldered assemblies*

IEC 61191-3, *Printed board assemblies – Part 3: Sectional specification – Requirements for through-hole mount soldered assemblies*