



SLOVENSKI STANDARD
SIST EN 123200:2001/A1:1997
01-avgust-1997

Sectional specification: Single and double sided printed boards with plated-through holes - Amendment to table IV of EN

Sectional Specification: Single and double sided printed boards with plated-through holes

Rahmenspezifikation: Leiterplatten mit Leiterbildern auf einer oder auf beiden Seiten mit metallisierten Löchern

Spécification intermédiaire: Cartes imprimées simples et doubles faces avec trous métallisés

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Ta slovenski standard je istoveten z: EN 123200:1992/A1:1995

ICS:

31.180 Tiskana vezja (TIV) in tiskane Printed circuits and boards
plošče

SIST EN 123200:2001/A1:1997 en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 123200/A1

August 1995

ICS 31.180

Descriptors: Printed boards, single and double sided, plated-through holes, test specimens, capability test, quality conformance inspection, test patterns

English version

**Sectional Specification:
Single and double sided printed boards
with plated-through holes**

Spécification intermédiaire:
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faces avec trous métallisés

Rahmenspezifikation:
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oder auf beiden Seiten mit metallisierten
Löchern

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This amendment A1 modifies the European Standard EN 123200:1992; it was approved by CENELEC on 1995-07-04. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 Central Secretariat or to any CENELEC member.

This amendment 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

This amendment was prepared by CLC/TC CECC/WG 23.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as amendment A1 to EN 123200:1992 on 1995-07-04.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1996-07-01
 - latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 1996-07-01
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Amendment A1 to EN 123200:1992

Introduce the data on pages 3, 4 and 5 of this amendment into table IV of EN 123200.

NOTE: The asterisk denotes a changed or new characteristic.

Table IV

Inspection Group	Characteristic	Test No	Level A		Level C	
			IL	AQL	IL	AQL
Group A						
Sub-Group A1						
	Visual Inspection					
	Conformity	1	S2	2.5%		100%
	Identification	1	S2	2.5%		100%
	Appearance	1a	S2	2.5%		100%
	Workmanship	1a	S2	2.5%		100%
	Plated-through holes	1a	S2	2.5%		100%
	* Conductor Defects	1a	S2	2.5%		100%
	* Misalignment of Solder	1a	S2	2.5%		100%
	Resist and Land					
	Particles between conductors	1b 1c	S2 S2	2.5% 2.5%		100% 100%
Sub-Group A2						
	Dimensional Examination					
	Board Dimensions	2	S1	4.0%	S4	2.5%
	Holes	2	S1	4.0%	S4	2.5%
	Slots, Notches	2	S1	4.0%	S4	2.5%
	Conductor Width	2	S1	4.0%	S4	2.5%
	Conductor Spacing	2	S1	4.0%	S4	2.5%
	Misalignment of Hole and Land	2	S1	4.0%	S4	2.5%
	Positional Tolerance of Hole Centres	2	S1	4.0%	S4	2.5%
	* Misalignment of Solder Resist and Land	2a	S1	4.0%	S4	2.5%
Sub-Group A3						
	Spare group for additional A tests					

Inspection Group	Characteristic	Test No	Level A		Level C	
			IL	AQL	IL	AQL
Group B						
Sub-Group B1						
	Dimensional Interchangeability					
	Board Thickness in the edge contact zone	2	-	-	S2	2.5%
	Flatness	12a	-	-	S2	2.5%
Sub-Group B2						
	Solderability					
	Unconditioned	14a	S2	2.5%	S3	2.5%
*	After Accelerated Aging	20a	-	-	S3	2.5%
Sub-Group B3						
	Thermal Shock Tests					
*	Through-hole Platings	19c	-	-	S2	2.5%
*	Heat Sink Bond	15a	-	-	S2	2.5%
Sub-Group B4						
	Mechanical Tests					
	Peel Strength	10a	-	-	S2	2.5%
	Pull-off strength of lands with plain holes	11a	-	-	S2	2.5%
	Pull-out strength of landless plated - through holes	11b	-	-	S2	2.5%
Sub Group B5						
	Surface Finish Tests					
	Adhesion of Plating	#13a	S1	2.5%	S2	2.5%
*	Thickness of edge	13f	-	-	S2	2.5%
*	Edge Plating Porosity	#13d	-	-	S2	2.5%
		13e	-	-	S2	2.5%
Sub-Group B6 *						
	Internal Short Circuit	4a	-	-	S2	2.5%

Inspection Group	Characteristic	Test No	Level A		Level C	
			No of Specimens	Accept: Reject	No of Specimens	Accept: Reject
<u>Group C</u>						
<u>Sub-Group C1</u>						
	<u>Test Interval: 3 Months</u>					
	Change in Resistance of plated-through holes	3c	-	-	6	1:2
	* Insulation Resistance between heat sink and subjacent circuitry	6c	-	-	20	1:2
	* Insulation Resistance between heat sink and adjacent circuitry	6c	-	-	20	1:2
	* Process Contamination	#	-	-	20	1:2
	* Solvent Resistance	#	-	-	6	1:2
	* Resistance to Solder	#	-	-	6	1:2

NOTES:

1. The symbol # denotes that the testing detail shall be included in the relevant Capability Detail Specification.

2. This listing may be subject to continuing review, as required by the publication of new Capability Detail Specifications.

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