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Standards

Irish Standard  
I.S. EN 16602-70-11:2015

# Space product assurance - Procurement of printed circuit boards

**I.S. EN 16602-70-11:2015**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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## Space product assurance - Procurement of printed circuit boards

Assurance produit des projets spatiaux -  
Approvisionnement des circuits imprimés

Raumfahrtproduktsicherung - Beschaffung von Leiterplatten

This European Standard was approved by CEN on 11 October 2014.

CEN and 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 CEN and 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 CEN and CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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## **Table of contents**

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<b>Foreword .....</b>	<b>4</b>
<b>1 Scope.....</b>	<b>5</b>
<b>2 Normative references .....</b>	<b>6</b>
<b>3 Terms, definitions and abbreviated terms.....</b>	<b>7</b>
3.1 Terms from other standards.....	7
3.2 Terms specific to the present standard .....	7
3.3 Abbreviated terms.....	10
<b>4 Principles .....</b>	<b>11</b>
<b>5 Requirements.....</b>	<b>12</b>
5.1 Procurement of PCBs .....	12
5.1.1 General .....	12
5.1.2 Design and layout .....	12
5.2 Base materials.....	13
5.2.1 Base laminate materials.....	13
5.2.2 Basic metallic layer .....	14
5.2.3 Plated metallic layers and finishes .....	14
5.2.4 Special materials.....	15
5.3 PCB delivery .....	16
5.3.1 Marking .....	16
5.3.2 Associated test coupons .....	16
5.3.3 Outgoing inspection and PCB manufacturer data package .....	17
5.4 Packaging.....	17
5.4.1 Handling and storage .....	17
5.4.2 Packaging .....	17
5.5 Supplier acceptance of PCBs .....	18
5.5.1 Supplier acceptance inspection.....	18
5.5.2 Electrical test.....	18
<b>6 Inspection of PCBs.....</b>	<b>19</b>
6.1 General.....	19

6.2	Visual inspection and non-destructive test .....	19
6.2.1	Verification of marking.....	19
6.2.2	Visual aspects.....	19
6.2.3	External dimensions.....	22
6.2.4	Warp .....	23
6.2.5	Twist .....	23
6.3	Microsection inspection criteria .....	24
6.3.1	General.....	24
6.3.2	Thickness of metal-plating.....	25
6.3.3	Aspect of plated-through holes.....	27
<b>7</b>	<b>Requirements for PCBs .....</b>	<b>30</b>
7.1	Rigid single-sided and double-sided PCBs .....	30
7.2	Rigid single-sided and double-sided PCBs for high frequency application .....	32
7.3	Flexible PCBs .....	35
7.4	Rigid-flex PCBs .....	36
7.5	Rigid multilayer PCBs .....	37
7.6	Sequential rigid multilayer PCBs.....	39
<b>Annex A</b>	<b>(normative) PCB Certificate of conformance (CoC) – DRD.....</b>	<b>43</b>
<b>Bibliography</b> .....		<b>45</b>
<b>Figures</b>		
Figure 6-1:	Arbitrary defects on conductors .....	22
Figure 6-2:	Arbitrary defects on spacing between conductors.....	22
Figure 6-3:	Misalignment of cover layer (for flexible PCBs) .....	22
Figure 6-4:	Warp .....	23
Figure 6-5:	Twist.....	24
Figure 6-6:	Dimensional parameters to be measured .....	24
Figure 6-7:	Microsection of a PTH .....	26
Figure 6-8:	Undercut for PCBs with fused SnPb finish.....	27
Figure 6-9:	Undercut for PCBs with Au/Ni or Au finish .....	27
Figure 6-10:	Overhang for PCBs with Au/Ni or Au finish.....	27
Figure 6-11:	Microsection in PTH: Possible defects.....	28
Figure 6-12:	Microsection of PTH: Possible defects .....	29
Figure 6-13:	Voids in resin inside buried vias .....	29
Figure A-1 :	Example of a PCB CoC.....	44

## Foreword

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This document (EN 16602-70-11:2015) has been prepared by Technical Committee CEN/CLC/TC 5 "Space", the secretariat of which is held by DIN.

This standard (EN 16602-70-11:2015) originates from ECSS-Q-ST-70-11C.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 2015, and conflicting national standards shall be withdrawn at the latest by July 2015.

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

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This document has been developed to cover specifically space systems and has therefore precedence over any EN covering the same scope but with a wider domain of applicability (e.g. : aerospace).

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

# 1 Scope

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This Standard defines the requirements imposed on the customer, the supplier and the qualified PCB manufacturer for PCB procurement.

The requirements of clause 7 apply to both qualification and procurement of finished PCBs and do not include the manufacturing tolerances.

This Standard is applicable for the following type of boards:

- Rigid PCBs (single-sided, double-sided, multilayer, sequential multilayer and PCBs with metal core)
- Flexible PCBs (single-sided and double-sided)
- Rigid-flex PCBs (multilayer and sequential multilayer)
- High frequency PCBs
- Special PCBs.

PCBs are used for the mounting of components in order to produce PCB assemblies performing complex electrical functions. The PCBs are subjected to thermo-mechanical stresses during their assembly such as mounting of components by soldering, rework and repair under normal terrestrial conditions. In addition the assembled PCB is subjected to the environment imposed by launch and space flights. Therefore the qualification of a PCB supplier to ECSS-Q-ST-70-10 is of extreme importance before the procurement of PCB for space usage.

This standard may be tailored for the specific characteristics and constraints of a space project in conformance with ECSS-S-ST-00.

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