EESTI STANDARD

EVS-EN 165000-1:2002

Film and hybrid integrated circuits - Part 1: Generic specification - Capability approval procedure

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EVS **EESTI STANDARDIKESKUS**

EESTI STANDARDI EESSÕNA   NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 165000-1:2002 sisaldab Euroopa standardi EN 165000-1:1996 ingliskeelset teksti.	This Estonian standard EVS-EN 165000-1:2002 consists of the English text of the European standard EN 165000-1:1996.
Käesolev dokument on jõustatud 18.12.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 18.12.2002 with the notification being published in the official publication of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

Käsitlusala: This specification prescribes the quality assessment procedures and methods of tests to be used in the assessment of film and hybrid integrated circuits intended for use in electronic equipment, under the capability approval procedure. It also applies to part completed devices supplied to customers for subsequent processing. It should be read in conjunction with EN 165000-2, -3 and -4.	**Scope:** This specification prescribes the quality assessment procedures and methods of tests to be used in the assessment of film and hybrid integrated circuits intended for use in electronic equipment, under the capability approval procedure. It also applies to part completed devices supplied to customers for subsequent processing. It should be read in conjunction with EN 165000-2, -3 and -4.

ICS 31.200

Võtmesõnad: generic specification, hybrid circuits, quality

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 165000-1

April 1996

English version

Film and hybrid integrated circuits
Part 1: Generic specification
Capability approval procedure

This European Standard was approved by CENELEC on 1996-03-05. 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 Central Secretariat or to any 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 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

Ref. No. EN 165000-1:1996 E

Foreword

This European Standard was prepared by CLC/TC CECC SC 47AX (former CECC/WG 21), Film and hybrid integrated circuits.

The text of the draft was submitted to the Unique Acceptance Procedure and was approved by CENELEC as EN 165000-1 on 1996-03-05.

The following dates were fixed:

-   latest date by which the EN has to be implemented
    at national level by publication of an identical
    national standard or by endorsement   (dop) 1997-03-01

-   latest date by which the national standards
    conflicting with the EN have to be withdrawn   (dow) 1997-03-01

The present standard, EN 165000-1, Film and hybrid integrated circuits - Part 1: Generic Specification - Capability approval procedure, is intended to be read in conjunction with the other parts of EN 165000, which are:

Part 2: Internal visual inspection and special tests
Part 3: Self-audit checklist and report for film and hybrid integrated circuit
         manufacturers
Part 4: Customer information, product assessment level schedules and blank
         detail specification

Part 3 is primarily intended as a pro-forma for the manufacturer and is not considered <u>essential</u> for a customer <u>in this form</u>.

Part 4 is considered an essential document for all users; in particular it includes a helpful introductory section which is aimed at potential customers and seeks to explain the underlying philosophy upon which the whole standard is based.

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1.   **GENERAL**

1.1   **Scope**

This specification prescribes the quality assessment procedures and methods of tests to be used in the assessment of film and hybrid integrated circuits intended for use in electronic equipment, under the capability approval procedure. It also applies to part completed devices supplied to customers for subsequent processing.

It should be read in conjunction with EN 165000-2, -3 and -4.

1.2   **Normative references**

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

Publication	Year	Title	EN/HD	Year
IEC 27		Letter symbols to be used in electrical technology	–	–
IEC 50		International Electrotechnical Vocabulary	–	–
IEC 68-1	1988	Environmental testing – Part 1 : General and guidance	EN 60068-1	1994
+ Corrigendum	1988		–	–
+ A1	1992		–	–
IEC 68-2-1	1990	Part 2 : Tests – Tests A : Cold	EN 60068-2-1	1993
A1	1993		A1	1993
A2	1994		A2	1994
IEC 68-2-2	1974	Tests B : Dry heat	EN 60068-2-2	1993
+ IEC 68-2-2A	1976		–	–
A1	1993		A1	1993
A2	1994		A2	1994
IEC 68-2-3	1969	Test Ca : Damp heat, steady state	HD 323.2.3 S2	1987
+ A1	1984		–	–
IEC 68-2-6	1995	Test Fc and guidance : Vibration (sinusoidal)	EN 60068-2-6	1995
+ Corrigendum	1995		–	–
IEC 68-2-7	1983	Test Ga and guidance : Acceleration, steady state	EN 60068-2-7	1993
+ A1	1986		–	–
IEC 68-2-11	1981	Test Ka : Salt mist	HD 323.2.11 S1	1988
IEC 68-2-14	1984	Test N : Change of temperature	HD 323-2-14 S2	1987
+ A1	1986	–	–	

1.2 Normative references, continued

IEC 68-2-17	1994	Test Q : Sealing	EN 60068-2-17	1994
IEC 68-2-20	1979	Test T : Soldering	HD 323.2.20 S3	1988
+ A1	1986		-	-
+ A2	1987		-	-
IEC 68-2-21	1983	Test U : Robustness of terminations and integral mounting devices	HD 323.2.21 S3	1988
+ A1	1985		-	-
+ A2	1991		-	-
+ A3	1992		-	-
IEC 68-2-27	1987	Test Ea and guidance : Shock	EN 60068-2-27	1993
[IEC 68-2-28	1990	Guidance for damp heat tests	-	-]
IEC 68-2-30	1990	Test Db : Damp heat, cyclic	HD 323.2.30 S3	1988
+ A1	1985		-	-
[IEC 68-2-33	1971	Guidance on change of temperature tests	HD 323.2.33 S1	1988]
+ A1	1978		-	-
[IEC 68-2-44	1979	Guidance on Test T : Soldering	HD 323.2.44 S1	1988]
IEC 68-2-45	1980	Test XA and guidance : Immersion in cleaning solvents	EN 60068-2-45	1992
A1	1993		A1	1993
IEC 68-2-47	1982	Mounting of components, equipment and other articles for dynamic tests including shock (Ea), bump (Eb), vibration (FC and FC), and steady-state acceleration (Ga) and guidance	EN 60068-2-47	1993
IEC 134	1961	Rating systems for electronic tubes and valves and analogue semiconductor devices	-	-
IEC 191		Mechanical standardization of semiconductor devices	-	-
IEC 440	1973	Method of measurement for non-linearity in resistors	-	-
IEC 617		Graphic symbols for diagrams	-	-
IEC 695-2-2	1991	Fire hazard testing - Part 2 : Test methods - Section 2 : Needle-flame test	EN 60695-2-2 + Corrigendum	1994 1994
IEC 747-1[1)]	1983	Semiconductor devices. Discrete devices - Part 1 : General	-	-
+ A1	1991			
+ A2	1993			

1.2   Normative references, continued

IEC 748-1[1]	1984	Semiconductor devices. Integrated – circuits – Part 1 : General	–
IEC 749	1984	Semiconductor devices. Mechanical – and climatic test methods	–
+ A1	1991		
+ A2	1993		
CECC 00 007		Sampling plans and procedures for inspection by attributes	
CECC 00 114		Quality Assessment Procedures (RP 14)	
–	–	Part I : Approval of manufacturers and other organizations (with addemdum) (RP 14/I)	EN 100114-1
CECC 00 114/III		Part III : Capability Approval of an electronic component manufacturing activity (RP 14/III)	
–	–	Radiographic inspection of electronic components	EN 100012
–	–	Protection of electrostatic sensitive devices	EN 100015
CECC 00 016		Basic requirements for the use of Statistical Process Control (SPC) in the CECC systems – Part 1 : Minimum requirements	
CECC 00 020		Register of firms, products and services approved under the CECC system	
CECC 00 300		List of CECC European Standards (ENs), CECC Publications and Related National Documents	
CECC 00 400[2]		Handbook for the production of CECC documents	
ECQAC 1120[3]		Harmonized system of quality assessment for electronic components. ECQAC requirements for the drafting of qualification approval and capability approval test reports	
ECQAC 1220[3]		Harmonized system of quality assessment for electronic components. ECQAC policy or uncertainty of measurement	
ISO 1000		SI units and recommendations for use of their multiples and of certain other units	

1) Together with any other part of IEC 747 or IEC 748 relevant to the specific hybrid application, including terminology.
2) Superseded by the PNE-Rules (CEN/CENELEC internal regulations – Part 3 : Rules for the drafting and presentation of European Standards).
3) These documents were produced by the Electronic Components Quality Assurance Committee of the CECC and may be obtained from the ONS. ECQAC 1120 is to be incorporated into the revision of RP 14 Part II, currently under discussion; this will consist of two sections: Section 1 : Qualification approval of electronic components, and Section 2 : Release for delivery and validity of release. ECQAC 1220 will be incorporated into the revision RP 14 Part I, the voting for which is scheduled for completion in October 1995.