

Förderverein für Elektrotechnische Normung (FEN) e. V.
Cenelec Electronic Components Committee

CECC

Système Harmonisé d'Assurance de la Qualité
des Composants Electroniques

SPECIFICATION PARTICULIERE CADRE:

CIRCUITS INTEGRES HYBRIDES ET A COUCHES (AGREMENT DE SAVOIR-FAIRE)

Harmonized System of Quality Assessment for
Electronic Components

BLANK DETAIL SPECIFICATION:

FILM AND HYBRID INTEGRATED CIRCUITS (CAPABILITY APPROVAL)

Harmonisiertes Gütebestätigungssystem für
Bauelemente der Elektronik

VORDRUCK FÜR BAUARTSPEZIFIKATION: INTEGRIERTE HYBRID- UND SCHICHTSCHALTUNGEN (ANERKENNUNG DER BEFÄHIGUNG)



1

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Documents



Document Sharing Hub

Cette page bleue doit être insérée après la page de garde de la CECC 63 201 Edition 1 (1984)

MODIFICATION 2 DE LA CECC 63 201 (Edition 1):
SPECIFICATION PARTICULIERE CADRE
(AGREMENT DE SAVOIR-FAIRE):

CIRCUITS INTEGRES HYBRIDES ETA COUCHES

Les modifications suivantes doivent être effectuées:

Retirer les pages numérotées 7, 9 et insérer les nouvelles pages numérotées 7, 9 de la Modification 2.

Toutes les pages non mentionnées sont maintenues.

Cette modification consiste en l'introduction dans le Tableau 2 de la possibilité de choisir pour l'essai de sélection, une des trois séquences préférentielles qui sont décrites actuellement dans le paragraphe 4.6 de la spécification générique CECC 63 000.

Le texte pour cette modification a été soumis au vote du CECC dans les documents indiqués ci-dessous et a été accepté par le Président du CECC pour être publié comme modification à la spécification particulière cadre.

Document	Date de vote	Rapport de vote
CECC(Sec)1834	Septembre 1985	CECC(Sec)2017
CECC(Sec)2110	Juin 1987	CECC(Sec)2181

Enregistrer les modifications sur la feuille jaune "Enregistrement de modifications".

CECC 63 201 Edition 1 Modification 2 (1988)

This blue page should be inserted after the title page of CECC 63 201 Issue 1 (1984)

AMENDMENT 2 TO CECC 63 201 (Issue 1):
BLANK DETAIL SPECIFICATION CAPABILITY
APPROVAL):

FILM AND HYBRID INTEGRATED CIRCUITS

The following amendment shall be made:

Remove sheets with pages numbered 7, 9 and insert new sheets with pages numbered 7, 9 of Amendment 2.

All remaining pages which are not listed are to be retained.

This amendment consists of the introduction into Table 2 of the possibility to choose for screening one of the preferred screening sequences which are now described in sub-clause 4.6 of the generic specification CECC 63 000.

The text of this amendment was circulated to the CECC for voting in the documents indicated below and was ratified by the President of the CECC for printing as amendment to the blank detail specification.

Document	Voting Date	Report on the Voting
CECC(Sec)1834	September 1985	CECC(Sec)2017
CECC(Sec)2110	June 1987	CECC(Sec)2181

Enter these amendments on the yellow "Record of Amendments" sheet.

CECC 63 201 Issue 1 Amendment 2 (1988)

Dieses blaue Blatt ist nach dem Titelblatt CECC 63 201 Ausgabe 1 (1984) einzusetzen

ÄNDERUNG 2 ZU CECC 63 201 (Ausgabe 1):
VORDRUCK FÜR BAUARTSPEZIFIKATION
(ANERKENNUNG DER BEFÄHIGUNG):

INTEGRIERTE HYBRID- UND SCHICHTSCHALTUNGEN

Folgende Änderung ist vorzunehmen:

Die Seiten mit der Seitenzahl 6 und 9 sind herauszunehmen und durch die neuen Seiten mit der Seitenzahl 6, 9 der Änderung 2 zu ersetzen.

Alle übrigen nicht aufgeführten Seiten bleiben unverändert.

Diese Änderung enthält die Einführung der Möglichkeit, für das Screening in Tabelle 2 eine der bevorzugten Screening-Folgen auszuwählen, die nun im Abschnitt 4.6 der Fachgrundspezifikation CECC 63 000 beschrieben sind.

Der Text dieser Änderung wurde dem CECC mit den unten aufgeführten Schriftstücken zur Abstimmung vorgelegt und vom Präsidenten des CECC zur Herausgabe als Änderung des Vordrucks zur Bauartspezifikation freigegeben.

Schriftstück	Abstimmungsdatum	Abstimmbericht
CECC(Sek)1834	September 1985	CECC(Sek)2017
CECC(Sek)2110	Juni 1987	CECC(Sek)2181

Diese Änderung ist auf dem gelben Blatt "Verzeichnis der Änderung" einzutragen.

CECC 63 201 Ausgabe 1 Änderung 2 (1988)

Cette page bleue doit être insérée après la page de garde de la CECC 63 201 Edition 1 (1984) MODIFICATION 1 A LA CECC 63 201 (Edition 1): SPECIFICATION PARTICULIERE CADRE: CIRCUITS INTEGRES HYBRIDES ET A COUCHES (AGREMENT DE SAVOIR-FAIRE)	This blue page shall be inserted after the title page of CECC 63 201 Issue 1 (1984) AMENDMENT 1 TO CECC 63 201 (Issue 1): BLANK DETAIL SPECIFICATION: FILM AND HYBRID INTEGRATED CIRCUITS (CAPABILITY APPROVAL)	Dieses blaue Blatt ist nach dem Titelblatt der CECC 63 201 Ausgabe 1 (1984) einzufügen ÄNDERUNG 1 ZU CECC 63 201 (Ausgabe 1): VORDRUCK FÜR BAUARTSPEZIFIKATION: INTEGRIERTE HYBRID-UND SCHICHTSCHALTUNGEN (ANERKENNUNG DER BEFAHIGUNG)
Supprimer les pages 2/3 et insérer les nouvelles pages 2 Modif. 1 / 3, qui contiennent, sur la page 2, la modification: PAGE 2 Alinéa 1, dernière phrase "g" a été modifié pour lire "2.1.2, note 4" Toutes les pages <u>non mentionnées</u> sont maintenues. Enregistrer la modification sur la feuille jaune "Enregistrement de modification".	Remove pages 2/3 and insert new pages 2 Amdt 1 / 3 which include change on page 2: PAGE 2 Paragraph 1, last sentence "g" has been amended to read "2.1.2, note 4" All remaining pages which are <u>not listed</u> are to be retained. Enter this amendment on the yellow "Record of Amendments" sheet.	Die Seiten 2/3 sind herauszunehmen und die neuen Seiten 2 Änd. 1 / 3 einzufügen. Sie enthalten eine Änderung auf Seite 2: SEITE 2 Absatz 1, letzter Satz "g" wurde ersetzt durch "2.1.2, Anmerkung 4" Alle übrigen <u>nicht aufgeführten</u> Seiten bleiben unverändert. Diese Änderung ist auf dem gelben Blatt "Verzeichnis der Änderung" einzutragen.
CECC 63 201 Edition 1 Modification 1 1987	CECC 63 201 Issue 1 Amendment 1 1987	CECC 63 201 Ausgabe 1 Änderung 1 1987



FOREWORD

The CENELEC Electronic Components Committee (CECC) is composed of those member countries of the European Committee for Electrotechnical Standardization (CENELEC) who wish to take part in a harmonized System for electronic components of assessed quality.

The object of the System is to facilitate international trade by the harmonization of the specifications and quality assessment procedures for electronic components, and by the grant of an internationally recognized Mark, or Certificate, of Conformity. The components produced under the System are thereby accepted by all member countries without further testing.

This specification has been formally approved by the CECC, and has been prepared for those countries taking part in the System who wish to issue national harmonized specifications for FILM and HYBRID INTEGRATED CIRCUITS (F&HICs). It should be read in conjunction with the current regulations for the CECC System.

At the date of printing of this specification the member countries of the CECC are Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom, and copies of it can be obtained from the addresses shown on the blue flysheet.

PREFACE

This blank detail specification was prepared by CECC Working Group 21 : "HYBRID MICRO-CIRCUITS".

It is based, wherever possible, on the Publications of the International Electrotechnical Commission and in particular on IEC Publication 147 : Essential ratings and characteristics of semiconductor devices and general principles of measuring methods.

The text of this blank detail specification was circulated to the CECC for voting in the documents listed below and was ratified by the President of the CECC for printing as a CECC Specification.

<u>Documents</u>	<u>Voting date</u>	<u>Report on the voting</u>
CECC(Secretariat)1180	August 1982	CECC(Secretariat)1277
CECC(Secretariat)1366	July 1983	CECC(Secretariat)1413

At present this specification covers F&HICs using thick film techniques only but amendments are under preparation to cover F&HICs manufactured using thin film techniques as well.



BLANK DETAIL SPECIFICATION

A blank detail specification is a supplementary document to the sectional specification and contains requirements for style and layout and minimum content of detail specifications. For detail specifications for customer circuits which will not be published, the lay-out requirements of the blank detail specification are optional. For the minimum content of the inspection requirements see 3.3.4 of CECC 63 200 and 2.1.2, note 4 of this specification.

In the preparation of detail specifications the content of 2.3 of CECC 63 200 shall be taken into account.

The numbers between square brackets on page 3 correspond to the following indications which should be given :

Identification of the detail specification and of the F&HICs

- [1] The name of the National Standards Organization under whose authority the detail specification is published and, if applicable, the organization from whom the detail specification is available.
 - [2] The CECC Symbol and the number allotted to the detail specification by the CECC General Secretariat.
 - [3] The number and issue number of the CECC generic or sectional specification as relevant; also national reference if different.
 - [4] If different from the CECC number, the national number of the detail specification, date of issue and any further information required by the national system, together with any amendment numbers.
 - [5] A brief description of the technique and the type or function of the hybrid circuit.
 - [6] Information on typical construction (where applicable).
- For [5] and [6] the text to be given in the detail specification should be suitable for an entry in CECC 00 200 (QPL) and CECC 00 300 (Library List).
- [7] An outline drawing with main dimensions which are of importance for interchangeability and/or reference to the appropriate national or international document for outlines. Alternatively, this drawing may be given in an appendix to the detail specification.
 - [8] The levels of quality assessment covered by the detail specification.
 - [9] Reference data giving information on the most important properties of the F&HIC which allow comparison between the various F&HIC types intended for the same, or for similar, applications.

State whether the terminations are (not) suitable for printed wiring applications.

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SECTION ONE - GENERAL DATA

1.1 RECOMMENDED METHODS OF MOUNTING

In accordance with CECC 63 200

1.2 DIMENSIONS, CHARACTERISTICS AND CONDITIONS OF USE

TABLE 1 [9]

Where a range of products has the same basic function and is made in the same technology and envelope, this table will be used to detail the differences in characteristics.

The detail specification shall contain all information needed to describe adequately :

1.2.1 Performance and design of the circuit

- (1) Schematic circuit diagram
- (2) Resistance and capacitance values, tolerances, matching, tracking, power dissipation, temperature coefficients of resistors/temperature coefficients of capacitors where applicable
- (3) Limitations on resistance of conductors where applicable
- (4) Test circuit or method and performance limits
- (5) Added components (see 3.6.2 of CECC 63 000).

1.2.2 Limiting conditions of use

Examples : Operating temperature range
Storage temperature range
Vibration, shock, bump severities
Climatic category
Maximum voltage.

Note : Any interrelationship between the details specified in 1.2.1 and 1.2.2 shall be stated.

1.2.3 Derating

See "Rated dissipation" of 2.2.2 (2) of CECC 63 200.
(Where applicable, derating curve to be included in the detail specification).

1.3 RELATED DOCUMENTS

Generic specification CECC 63 000 (1984)
 Sectional specification CECC 63 200 (1984)

National Authorized Institutions will complete this section, making reference to any documents, recommendations or specifications directly referred to in their national equivalent of this document.

1.4 MARKING

The marking of the circuit and primary package shall be in accordance with the requirements of 2.5 of CECC 63 000.

Note : The details of the marking of the circuit and primary package shall be given in full in the detail specification.

1.5 ORDERING INFORMATION

Orders for F&HICs covered by this specification shall contain the following information :

- 1) Thick film hybrid integrated circuit
- 2) Number of the detail specification with style reference and assessment level, if appropriate
- 3) Function of the circuit, if appropriate
- 4) Basic functional characteristics with tolerance, if appropriate.

1.6 CERTIFIED TEST RECORDS

1.6.1 Catalogue product

Certified test records shall conform to 3.7.3 (1) of CECC 63 000.

1.6.2 Custom built product

The detail specification shall prescribe the requirements for certified test records; customers are advised to refer to 3.7.3 (2) of CECC 63 000.

1.7 ADDITIONAL INFORMATION (not for inspection purposes)

The detail specification may include information (which is not normally required to be verified by the inspection procedure) such as circuit diagrams, curves, drawings and notes for the clarification of the detail specification.

1.8 ADDITIONAL OR INCREASED SEVERITIES OR REQUIREMENTS TO THOSE SPECIFIED IN THE GENERIC AND/OR SECTIONAL SPECIFICATION

Note : Additions or increased requirements should be specified only when essential.

SECTION TWO - INSPECTION REQUIREMENTS

(See Tables 2 and 3)

2.1 PROCEDURES

- 2.1.1 For capability approval the procedure shall be in accordance with CECC 63 200.
- 2.1.2 For maintenance of capability approval the test schedule includes sampling, periodicity, severities and requirements.

TABLES 2 AND 3Notes :

1. Clause numbers of tests and performance requirements refer to CECC 63 000.
2. ILs and AQLs given in Table 3A of CECC 63 200 are selected from IEC 410.

3. In these tables :

p = periodicity (in months)
n = sample size
c = acceptance criterion (permitted number of defectives)
D = destructive
ND = non-destructive
IL = inspection level
AQL = acceptable quality level } IEC 410

4. Screening 100 %, Groups A, B and Sub-group C1 inspections are carried out on circuits object of this detail specification.

Sub-groups C2, C3 and so on, and Group D inspections are carried out on CQCs to meet the severities and requirements claimed in the capability manual.

TABLE 2

(See notes on page 9)

CLAUSE NUMBERS, TESTS AND TEST SEQUENCES	D or ND	CONDITIONS OF TEST	SAMPLE SIZE AND CRITERION OF ACCEPT- ABILITY		PERFORMANCE REQUIREMENTS
<u>SCREENING</u> (1) 4.6.1 Schedule	ND		Required/ Not required		
<u>GROUP A INSPECTION</u> To be conducted on a sampling basis, lot-by-lot			<u>IL</u>	<u>AQL</u>	
<u>Sub-Group A1</u> 4.3.2 External visual exami- nation and marking	ND				
<u>Sub-Group A2</u> 4.4.11 Major static/dynamic electrical character- istics at room temperature (2)	ND				
<u>Sub-Group A3</u> 4.4.11 Major static/dynamic electrical character- istics at extreme operating temperatures	ND				
<u>GROUP B INSPECTION</u> To be conducted on a sampling basis, lot-by-lot					
<u>Sub-Group B1</u> 4.5.10 Solderability (3) (4)	D				
<u>Sub-Group B2</u> 4.3.3 Dimensions	ND				

(continued)

