

European Committee for Electrotechnical Standardization (CENELEC)
Cenelec Electronic Components Committee

CECC



Système Harmonisé d'Assurance de la Qualité
des Composants Electroniques

SPECIFICATION PARTICULIERE CADRE:

CONNECTEURS COAXIAUX POUR FREQUENCE RADIOELECTRIQUE

Série SMA

Harmonized System of Quality Assessment for
Electronic Components

BLANK DETAIL SPECIFICATION:

RADIO FREQUENCY COAXIAL CONNECTORS

Series SMA

Harmonisiertes Gütebestätigungssystem für
Bauelemente der Elektronik

VORDRUCK FÜR
BAUARTSPEZIFIKATION:

HOCHFREQUENZ- KOAXIAL-STECKVERBINDER

Serie SMA

1 Edition
Issue
Ausgabe

CECC 22111

1982

AVA Documents
Document Sharing Hub

Cette page bleue doit être insérée après la page de garde de la CECC 22 111 Edition 1 (1982)

MODIFICATION 1 A LA CECC 22 111 (Edition 1):

SPECIFICATION PARTICULIERE CAISSE:

CONNECTEURS COAXIAUX POUR FREQUENCE RADIO-ELECTRIQUE Série SMA

Aucune modification nécessaire

This blue page shall be inserted after the title page of CECC 22 111 Issue 1 (1982)

AMENDMENT 1 TO CECC 22 111 (Issue 1):

BLANK DETAIL SPECIFICATION:

RADIO FREQUENCY COAXIAL CONNECTORS Series SMA

Remove pages 6/7 and insert new pages 6/7 which include change on page 6.

PAGE 6 [9] ELECTRICAL, column 2.
Proof voltage at 20 km altitude
4.4.5 has been amended to read 4.6.5

Dieses blaue Blatt ist nach dem Titelblatt der CECC 22 111 Ausgabe 1 (1982) einzufügen

ÄNDERUNG 1 ZU CECC 22 111 (Ausgabe 1):

VORDRUCK FÜR BAUARTSPEZIFIKATION:

HOCHFREQUENZ-KOAXIAL-STECKVERBINDER Serie SMA

Die Seiten 6/7 und 8/9 sind herauszunehmen und die neuen Seiten 6/7 und 8/9 einzufügen. Sie enthalten Änderungen auf Seite 6 und 9.

SEITE 6 [9] ELEKTRISCHE, Spalte 2.
Spannungsfestigkeit in 20 km Höhe
4.4.5 wurde durch 4.6.5 ersetzt

SEITE 2 [11] PERIODISCHE PRÜFUNGEN, GRUPPE D2 (a)
"Salznebel" wurde hinzugefügt

Enter this amendment on the yellow "Record of Amendments" sheet.

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

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

CECC 22 111 Edition 1 Modification 1 1987

CECC 22 111 Issue 1 Amendment 1 1987

CECC 22 111 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 document has been formally approved by the CECC, and has been prepared for those member countries taking part in the System who wish to issue national harmonized specifications for RADIO FREQUENCY COAXIAL CONNECTORS AND ACCESSORIES. It should be read in conjunction with document CECC 00 100: Basic Rules (1974).

At the date of printing of this document the member countries of the CECC are Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom, and copies of it can be obtained from the addressees shown on the inside cover.

PREFACE

This blank detail specification was prepared by CECC Working Group 22: "RF Connectors".

In accordance with the requirements of document CECC 00 100, it is based wherever possible, on the recommendations of the International Electrotechnical Commission and in particular on IEC 169-15 (1979): Radio-frequency connectors, Part 15: R.F. coaxial connectors with inner diameter of outer conductor 4,13 mm (0,163 in) with screw coupling - Characteristic impedance 50 ohms (Type SMA).

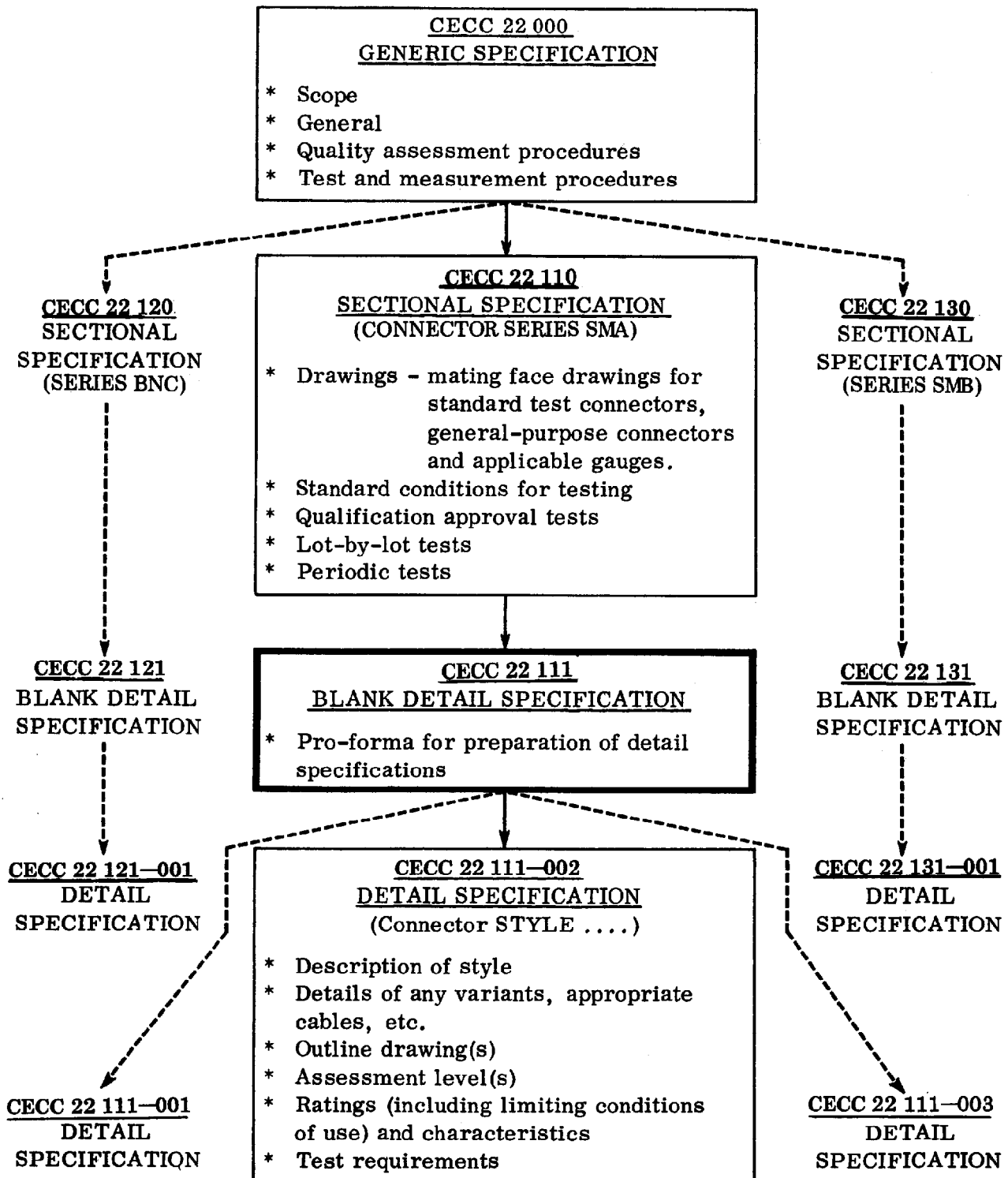
This blank detail specification and its associated sectional specifications are specific to series SMA radio frequency connectors and their related accessories; they should be read in conjunction with document CECC 22 000, generic specification: Radio frequency coaxial connectors.

Document numbering for R.F. connector specifications differs from that prescribed by Section 3 of CECC 00 400, in order to permit the issue of more than nine sectional specifications. The approved numbering system applicable to R.F. connector specifications is illustrated by the diagram on page 2.

The text of this specification was circulated to the CECC for voting in the documents listed below and was ratified by the CECC Management Committee for printing as a CECC Specification:

<u>Document</u>	<u>Voting Date</u>	<u>Report on the Voting</u>
CECC(Secretariat)866	February 1980	CECC(Secretariat)982
CECC(Secretariat)1006	January 1981	CECC(Secretariat)1059

**CECC SPECIFICATION SYSTEM
for R. F. Connectors**



NOTE: A detail specification is a 'completed' blank detail specification

Key for page 5

The numbers between square brackets on page 5 correspond to the following indications which should be given:

Identification of the detail specification

- [1] The name(s) of the National Standards Organization under whose authority the detail specification is drafted.
- [2] The CECC Symbol and the number of the CECC blank detail specification CECC 22 111 followed by the number allotted to the national detail specification by the CECC General Secretariat.
- [3] The number and issue number of the national generic specification and sectional specification.
- [4] The national number of the detail specification, date of issue and any further information required by the national system together with any amendment numbers, if issued.

Identification of component

- [5] Enter the following details:

Style: The style designation or model number of the connector.

The method of cable/wire attachment to the centre and outer conductor - by deletion of inapplicable options given.

Special Features & Markings: Example: 'Fitted with both panel and barrier seals'.

Mass: The maximum mass in grams, rounded upwards to the nearest whole number. If several variants (having differing mass) are included, list the maximum mass of each variant separately.

- [6] Enter details of assessment level and climatic category.

- [7] An outline drawing and panel piercing details shall be provided. The outline drawing shall provide maximum envelope dimensions of the relevant body style and in the case of a fixed connector the position of the mounting plane(s) relative to the front face of the connector. Information shall be given in the places indicated concerning the international document(s) - CECC 22 110 and IEC 169-15 - to which the interface dimension and the outline dimensions comply, together with any maximum panel thickness limitations for fixed connectors.

Other information to be given in the detail specification

- [8] Particulars of all variants covered by the detail specification. Where appropriate, the information shall include:
- cable types (or sizes) applicable to each variant.
 - alternative plated or protective finishes.
 - details of alternative mounting flanges having either tapped or plain mounting holes.
 - details of alternative solder spills or solder buckets for microwave component-mounting styles.
- [9] Performance data listing the most important characteristics of the connector in accordance with the requirements of 3.1 of CECC 22 110. Deviations from the recommended requirements listed shall be clearly indicated. Non-applicable parameters shall be marked 'na'.
- [10] Supplementary information in accordance with the following requirements.
- marking (see 2.4 of CECC 22 000)
 - marking and contents of package (see 2.5 and 2.5.1 of CECC 22 000)
 - ordering information (see 2.6 of CECC 22 000)
 - related documents (additional to those listed).
 - requirements for certified test records (see 3.7 of CECC 22 000).
 - structural similarity (see 3.2 and 3.4 of CECC 22 000).
- [11] The applicable tests for Quality Conformance Inspection and Qualification Approval shall be entered in the spaces provided. The details provided in Section 5.1 of CECC 22 110 indicate the mandatory tests required for Levels H and U, together with the appropriate Acceptable Quality (AQL) and Inspection (IL) levels. As indicated Level U represents the lowest possible level of quality assessment for Series SMA within the CECC System. Assessment levels intermediate between levels U and H or of greater severity than level H may be created by the introduction of tightened sampling plans. Performance requirements appropriate to the capabilities of the relevant connector shall be entered.

[1]	page 1 of	[2] CECC 22 111 -	
ELECTRONIC COMPONENT OF ASSESSED [3] QUALITY IN ACCORDANCE WITH GENERIC SPECIFICATION SECTIONAL SPECIFICATION	[4]	Issue	

[5] DETAIL SPECIFICATION for
RADIO FREQUENCY COAXIAL CONNECTOR OF ASSESSED QUALITY: SERIES

SMA

Style: Special Features & Markings:

Method of cable/wire* attachment: centre conductor — solder/crimp*
: outer conductor — solder/clamp/crimp*

Mass:(Max)

[6] Assessment level Characteristic Impedance 50Ω Climatic category:/...../.....

[7] Outline and maximum dimensions Panel piercing and mounting details

For mating interface dimensions and position of reference plane see CECC 22 110

Maximum panel thickness: for front mounting mm
for rear mounting mm

The outline dimensions meet the requirements of

[8] Variants

Variant No.	Description of Variant	IEC96-2	Relevant Cables RG	National Cables
- 01				
.....				
.....				
.....				
.....				
.....				
.....				
.....				
.....				

Notes: 1. *Delete as appropriate
2. See relevant Qualified Products List for availability of components qualified to this detail specification

[10] Supplementary Information

- | (1) component identification | Variant No./
Designation | Identification |
|------------------------------|-----------------------------|----------------|
|------------------------------|-----------------------------|----------------|

(2) Identity of manufacturer:
(3) Manufacturing date code; year/week

- Number of the detail specification CECC 22 111-
- Assessment level code letter
- Body finish (If more than one listed)
- Any additional information or special requirements

- In accordance with 3.2 and 3.4 of CECC 22 000.

[11]

TEST SCHEDULE AND INSPECTION REQUIREMENTS – SERIES SMA

Details of tests and quality assessment inspection requirements for Levels H and U are given in 5.1 of CECC 22 110.

ACCEPTANCE TESTS**GROUP A1**

Visual examination

GROUP B1

Outline dimensions

Compatibility mechanical

Engagement & separation

Gauge retention force (resilient contacts)

Sealing (panel & barrier seal)

Sealing (hermetic)

Voltage proof

CECC 22 110 Clause	LEVEL			Period
	Test Required	I.L.	AQL	
4.2				Lot by Lot
4.3.1				
4.5.7				
4.5.4				
4.5.1				
4.6.8				
4.6.9				
4.4.5				

PERIODIC TESTS**GROUP C1 (d)**

Soldering

Insulation resistance

CECC 22 110 Clause	Test	I.L.	AQL	Period
4.6.1				
4.4.4				

GROUP D1 (d)

Mechanical tests on cable clamping device

Bending moment

Tensile strength of coupling mechanism

CECC 22 110 Clause	Test Required	Specimens (May be from C1)	Permitted Failures ± per Group	Period
4.5.5				
4.5.9				
4.5.6				

GROUP D2 (d)

Contact resistance

Outer conductor continuity

Bump

Vibration

Shock

Damp heat, steady state

Salt mist

4.4.2				
4.4.3				
4.6.2				
4.6.3				
4.6.4				
4.6.6				
4.6.10				

GROUP D3

Dimensions and materials (piece parts)

Mass

4.3.2				
4.3.1				

GROUP D4 (d)

Mechanical endurance

High temperature endurance

4.7.1				
4.7.2				

GROUP D5 (d)

Reflection factor

Screening effectiveness

4.4.1				
4.4.8				

GROUP D6 (d)

Contact captivation

Rapid change of temperature

Climatic sequence

4.5.2				
4.6.7				
4.6.5				

PROCEDURES**Quality Conformance Inspection**

This shall consist of Test Groups A1 and B1 on a lot-by-lot basis and C1 on a periodic basis.

Qualification Approval and Its Maintenance

This shall consist of three consecutive lots passing Test Groups A1 and B1 followed by selection of specimens from lots as appropriate. These specimens shall successfully pass the specified periodic C1 and D tests.

NOTESIL = Inspection Level
AQL = Acceptable Quality Level

± = for Qualification Approval (QA) a total of 2 failures only permitted.

(d) = destructive test - specimens shall not be returned to stock.