

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

CECC



Système Harmonisé d'Assurance de la Qualité des Composants Electroniques

SPECIFICATION PARTICULIERE:

CONNECTEURS COAXIAUX POUR FREQUENCE RADIOELECTRIQUE Série SMA

Harmonized System of Quality Assessment for Electronic Components

DETAIL SPECIFICATION:

RADIO FREQUENCY COAXIAL CONNECTORS Series SMA

Harmonisiertes Gütebestätigungssystem für Bauelemente der Elektronik

BAUARTSPEZIFIKATION:

HOCHFREQUENZ- KOAXIAL-STECKVERBINDER Serie SMA

1 Edition
Issue
Ausgabe

CECC 2211-807

1984

AVA Documents
Document Sharing Hub

ERRATUM

Cette page bleue doit être insérée après la page de garde de la CECC 22 111-807 Edition 1 (1984)

This blue sheet shall be inserted after the title page of CECC 22 111-807 Issue 1 (1984)

Dieses blaue Blatt ist nach dem Titelblatt der CECC 22 111-807 Ausgabe 1 (1984) einzufügen

La modification suivante doit être effectuée à la main à l'Edition 1 (1984) de la CECC 22 111-807:

Page 2 [9] ELECTRIQUES, colonne 2

- Tension de tenue à 20 km d'altitude:

Modifier 4.4.5 pour lire 4.6.5

The following amendment to Issue 1 (1984) of CECC 22 111-807 should be made in manuscript:

Page 2 [9] ELECTRICAL, column 2

- Proof voltage at 20 km altitude:

Amend 4.4.5 to read 4.6.5

In Ausgabe 1 (1984) der CECC 22 111-807 ist folgende Änderung handschriftlich vorzunehmen:

Seite 2 [9] ELEKTRISCH, Spalte 2

- Spannungsfestigkeit in 20 km Höhe:

4.4.5 ist durch 4.6.5 zu ersetzen

	Edition 1	
CECC 22 111-807	Issue 1	ERRATUM
	Ausgabe 1	

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PREFACE

This detail specification (DS) was prepared by CECC Working Group 22: 'RF Connectors'.

It relates to Series SMA connectors covered by Sectional specification CECC 22 110 and by blank detail specification CECC 22 111. These in turn are related to the generic specification CECC 22 000.

The text of this DS was circulated to the CECC for voting in the documents detailed below and was ratified by the President of the CECC for printing as a CECC specification.

<u>Document</u>	<u>Voting date</u>	<u>Report on the voting</u>
CECC(Secretariat)1295	May 1983	CECC(Secretariat)1422

CECC 22 111-807 Issue 1



[1]	Page 1 of 6	[2] CECC 22 111 - 807
ELECTRONIC COMPONENT OF ASSESSED QUALITY IN ACCORDANCE WITH GENERIC SPECIFICATION 22 000 SECTIONAL SPECIFICATION 22 110	[3]	[4]

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

SERIES

SMA

Style: Fixed Socket.....

Special Features + Markings:

Method of cable/wire attachment:

square flange.....

centre conductor - solder/crimp

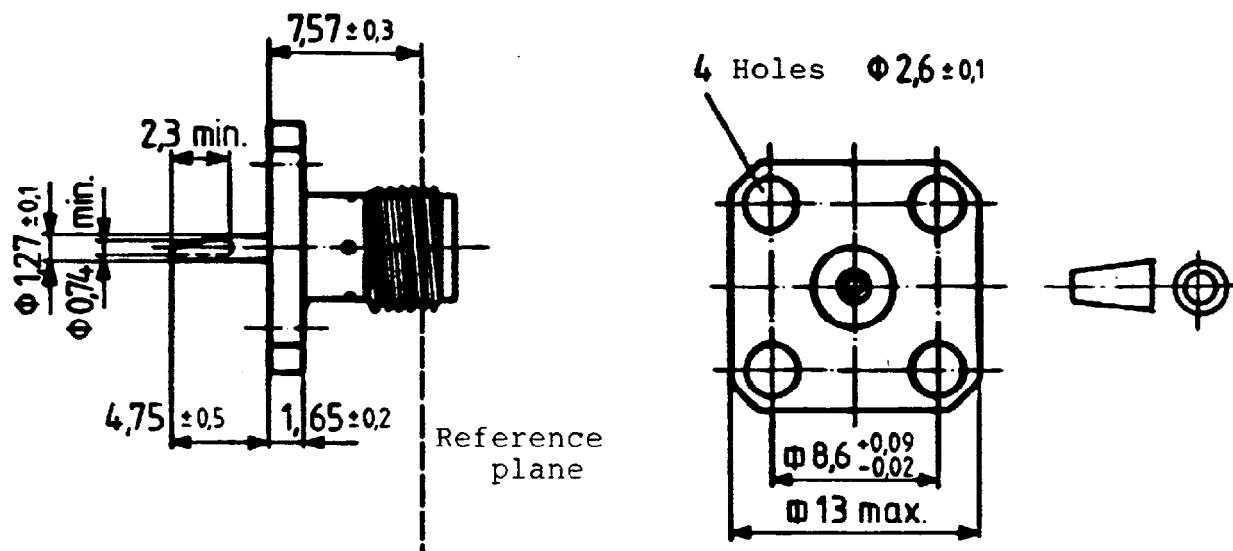
outer conductor - solder/clamp/crimp

Mass: 3.9..... (Max.)

[6] Assessment level .. H .. Characteristic impedance 50 Ω Climatic category: 55 / 155 / 21

[7] Outline and maximum dimensions

Panel piercing and mounting details



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

Maximum panel thickness: for front mounting without limit. mm
for rear mounting mm

The outline dimensions meet the requirements of

[8] Variants

Variant No.	Description of Variant	IEC 96-2	Relevant Cables RC	National Cables
-01	Connector, Gold	na	na	na
-02	Connector, Stainless Steel	na	na	na
.....				
.....				
.....				
.....				
.....				
.....				

Information about manufacturers who have components qualified to this detail specification is available in the current CECC 00 200: Qualified Products List.

RATINGS + CHARACTERISTICS	CECC 22 110 Clause	VALUE	REMARKS
MECHANICAL			
Contact captivation - axial force - torque	4.5.2	22.....N 0.028.....Nm	CECC 22 000 method (or as specified)
Engagement + separation - torque	4.5.4	04.....Nm max.	
Effectiveness of clamping device against cable pulling	Variant No./ Designation-01-02	4.5.5 (1) 04.....N 04.....	(to overcome friction of coupling nut)
Effectiveness of clamping device against cable torsion	-01-02	4.5.5 (2) 04.....Nm 04.....	
Tensile strength of coupling mechanism	4.5.6	04.....N	Relative to reference plane
Coupling torque - normal - proof		04.....Nm 04.....Nm	
Bending moment	4.5.9	0.45.....Nm	
ADDITIONAL MECHANICAL CHARACTERISTICS			
ENVIRONMENTAL			
Bump	4.6.2	390.....m/s ² 4000.....bumps	(.40.g acceleration)
Vibration	4.6.3	98.....m/s ² 10-2000.....Hz	(.10.g acceleration)
Shock	4.6.4	490.....m/s ² 1/2 Sine 11 ms	(.50.g acceleration)
Climatic Category	4.6.5	55./155/.21.	
Sealing (panel + barrier sealed connectors)	4.6.8	04.....	100 to 110 kPa pressure differential (1000 to 1100 mbar)
Sealing (hermetically sealed connectors)	4.6.9	04.....	100 to 110 kPa pressure differential (1000 to 1100 mbar)
ADDITIONAL ENVIRONMENTAL CHARACTERISTICS			
ENDURANCE			
Mechanical	4.7.1	..500...operat.	
High temperature	4.7.2	..1000...h at ..155.....°C	
ADDITIONAL ENDURANCE CHARACTERISTICS			

[10] Supplementary Information

- marking of the component : in accordance with 2.4 of CECC 22 000, in the following order or precedence :

i) Component identification	Variant No./ Designation	Identification
	-01	22-111-807-01...
	-02	-02...
		
		
		
		
		
		
ii) Identity of manufacturer		
iii) Manufacturing date code, year/week		

- marking and contents of package : in accordance with 2.5 and 2.5.1 of CECC 22 000 as follows :

- i) Information prescribed in 2.4 of CECC 22 000 detailed above
- ii) Nominal characteristic impedance 50 Ω unmatched style
- iii) Assessment level code letter H.....
- iv) Any additional marking required

- ordering information : in accordance with 2.6 of CECC 22 000 as follows :

- i) Number of the detail specification CECC 22 111- 807-xx (No. of variant)
- ii) Assessment level code letter H.....
- iii) Body finish (if more than one listed) see variant numbers in [8]
- iv) Any additional information or special requirements

- related documents :

CECC 22 000	Generic Specification for radio frequency connectors of assessed quality (and related documents, see 2.1 of CECC 22 000)
CECC 22 110	Sectional Specification for r.f. connectors Series SMA

- certified test records (RCE) : In accordance with 3.7 of CECC 22 000 (when applicable) (requirements to be included later)

- structural similarity : 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	CECC 22 110 Clause	LEVEL H			
		Test Requir.	I.L.	AQL	Period
Visual examination	4.2	a	S 3	1,5 %	Lot by Lot
GROUP B1					
Outline dimensions	4.3.1	a	S 3	4 %	
Compatibility mechanical	4.5.7	a	S 3	1,5 %	
Engagement + Separation	4.5.4	na			
Gauge retention force (resilient contacts)	4.5.1	a	S 3	1,5 %	
Sealing (panel + barrier seal)	4.6.8	na			
Sealing (hermetic)	4.6.9	na			
Voltage proof	4.4.5	a	S 3	4 %	

PERIODIC TESTS

GROUP C1 (d)	CECC 22 110 Clause	Test	I.L.	AQL	Period
Soldering	4.6.1	a			
Insulation resistance	4.4.4	a	S 3	4 %	1 yearly

GROUP D1 (d)	CECC 22 110 Clause	Test Requir.	Specimens (May be from C1)	Permitted Failures † per Group	Period
Mechanical tests on cable clamping device	4.5.5	na	3 mated pairs or sets min.	1	3 yearly
Bending moment	4.5.9	a			
Tensile strength of coupling mechanism	4.5.6	na			
GROUP D2 (d)					
Contact resistance	4.4.2	a			
Outer conductor continuity	4.4.3	a			
Bump	4.6.2	a	3 mated pairs or sets min.	1	3 yearly
Vibration	4.6.3	a			
Shock	4.6.4	a			
Damp heat, steady state	4.6.6	a			
Salt mist	4.6.10	a			
GROUP D3					
Dimensions and materials (piece parts)	4.3.2	a	1 set of piece parts each style	1	3 yearly
Mass	4.3.1	a			
GROUP D4 (d)					
Mechanical endurance	4.7.1	a	3 mated pairs or sets min.	1	3 yearly
High temperature endurance	4.7.2	a			
GROUP D5 (d)					
Reflection factor	4.4.1	na			
Screening effectiveness	4.4.8	na			
GROUP D6 (d)					
Contact captivation	4.5.2	a	3 mated pairs or sets min.	1	3 yearly
Rapid change of temperature	4.6.7	a			
Climatic sequence	4.6.5	a			

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.

NOTES

- I.L. = Inspection Level
- AQL = Acceptable Quality Level
- a = applicable
- † = for Qualification Approval (QA) a total of 2 failures only permitted
- (d) = destructive test - specimens shall not be returned to stock
- na = not applicable