

CECC



1 Edition
Issue
Ausgabe

CECC 2211-809

1984

AVA Documents
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ERRATUM

Cette page bleue doit être insérée après la page de garde de la CECC 22 111-809 Edition 1 (1984)

This blue sheet shall be inserted after the title page of CECC 22 111-809 Issue 1 (1984)

Dieses blaue Blatt ist nach dem Titelblatt der CECC 22 111-809 Ausgabe 1 (1984) einzufügen

La modification suivante doit être effectuée à la main à l'Edition 1 (1984) de la CECC 22 111-809:

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 22 111-809 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 22 111-809 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 22 111-809	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.

Document**Voting date****Report on the voting**

CECC(Secretariat)1297

May 1983

CECC(Secretariat)1424

CECC 22 111-809 Issue 1

[1]	Page 1 of 6	[2] CECC 22 111 - 809	
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: Straight plug for flexible cable.....

Special Features + Markings:

Method of cable/wire attachment:

centre conductor - solder/crimp

outer conductor - solder/clamp/crimp

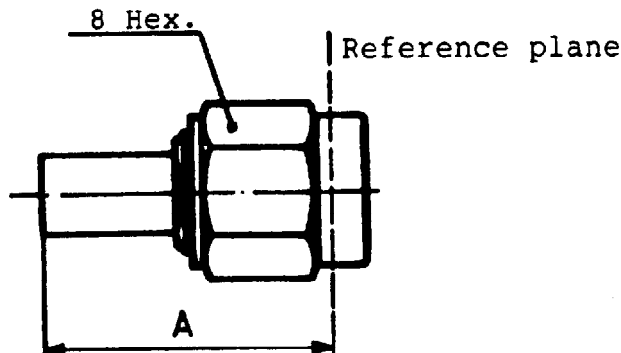
Mass: .Var. 01+02 = 5. g..... (Max.)

Var. 03+04+05+06 = 6 g

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

[7] Outline and maximum dimensions

Panel piercing and mounting details



Contact type	A
non captive	18 max.
captive	24 max.

Crimp dies and cable stripping
dimensions to conform with the
instructions supplied by the manu-
facturer

For mating interface 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	IEC 96-2	Relevant Cables RG	National Cables
.....-Q1.....	Connector, Gold.....)	..96 IEC 50-2-3	.....	..(F).....
.....-Q2.....	Connector, Passivated.....)	..96 IEC 50-2-2	RG 316A/U.....	KX 228..
.....-Q3.....	Stainless Steel.....)	..96 IEC 50-2-1	RG 174/U.....	KX 38..
.....-Q4.....	Connector, Gold.....)	..96 IEC 50-3-1	RG 58C/U.....	KX 15..
.....-Q5.....	Connector, Passivated.....)	..96 IEC 50-3-3	.....	.....
.....-Q6.....	Stainless Steel.....)	..96 IEC 50-3-7	.....	.....
.....-Q7.....	Connector, Gold.....)	.....	RG 400/U.....	KX 23..
.....-Q8.....	Connector, Passivated.....)	.....	RG 142B/U.....	.....
.....-Q9.....	Stainless Steel.....)	.....	.....	.....

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		4.5.2	...na.....N	CECC 22 000 method (or as specified)
- axial force			...na.....Nm	
- torque				
Engagement + separation		4.5.4	...0,25.....Nm max.	(to overcome friction of coupling nut)
- torque				
Effectiveness of clamping device	Variant No./ Designation	4.5.5	...90.....N	
against cable pulling	-01	(1)	...90.....	
	-02		...180.....	
	-03		...180.....	
	-04		...180.....	
	-05		...180.....	
	-06		...180.....	
				
				
Effectiveness of clamping device	-01	4.5.5	...0,3.....Nm	
against cable torsion	-02	(2)	...0,3.....	
	-03		...0,4.....	
	-04		...0,4.....	
	-05		...0,4.....	
	-06		...0,4.....	
				
				
Tensile strength of coupling mechanism		4.5.6	...180.....N	
Coupling torque			...0,8 - 1,1.....Nm	
- normal			...1,7.....Nm	
- proof				
Bending moment		4.5.9	...na.....Nm	Relative to reference plane
ADDITIONAL MECHANICAL CHARACTERISTICS				
ENVIRONMENTAL				
Bump		4.6.2	...390.....m/s ²	(.40.g acceleration)
Vibration		4.6.3	...4000.....bumps	
			...98.....m/s ²	(.10.g acceleration)
Shock		4.6.4	...10-2000.....Hz	
			...490.....m/s ²	(.50.g acceleration)
			1/2 sine 11 ms	
Climatic Category		4.6.5	55./155/21.	
Sealing (panel + barrier sealed connectors)		4.6.8	...na.....	100 to 110 kPa pressure differential (1000 to 1100 mbar)
Sealing (hermetically sealed connectors)		4.6.9	...na.....	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	22-111-809-01...
	-02	-02...
	-03	-03...
	-04	-04...
	-05	-05...
	-06	-06...
		
		
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 :

- Information prescribed in 2.4 of CECC 22 0000 detailed above
- Nominal characteristic impedance 50 Ω
- Assessment level code letter H.....
- Any additional marking required

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

- Number of the detail specification CECC 22 111- 809 -xx (No. of Variant)
- Assessment level code letter H.....
- Body finish (if more than one listed) see variant numbers in [8]
- 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

Visual examination

CECC
22 110
Clause

4.2

GROUP B1

Outline dimensions

Compatability mechanical

Engagement + Separation

Gauge retention force

(resilient contacts)

Sealing (panel + barrier seal)

Sealing (hermetic)

Voltage proof

4.3.1

4.5.7

4.5.4

4.5.1

4.6.8

4.6.9

4.4.5

LEVEL H

Test Requir.	I.L.	AQL	Period
a	S 3	1,5 %	Lot by Lot
a	S 3	4 %	
a	S 3	1,5 %	
a	S 3	1,5 %	
na			
na			
na			
a	S 3	4 %	

PERIODIC TESTS

GROUP C1 (d)

Soldering

Insulation resistance

CECC
22 110
Clause

4.6.1

4.4.4

Test	I.L.	AQL	Period
a			
a	S 3	4 %	1 yearly

GROUP D1 (d)

Mechanical tests on cable
clamping device

Bending moment

Tensile strength of
coupling mechanismCECC
22 110
Clause

4.5.5

4.5.9

4.5.6

Test Requir.	Specimens (May be from C1)	Permitted Failures † per Group	Period
a	3 mated pairs or sets min.	1	3 yearly
na			
a			

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

Test Requir.	Specimens (May be from C1)	Permitted Failures † per Group	Period
a	3 mated pairs or sets min.	1	3 yearly
a			
a			
a			
a			
a			
a			

GROUP D3

Dimensions and materials
(piece parts)

Mass

4.3.2

4.3.1

Test Requir.	Specimens (May be from C1)	Permitted Failures † per Group	Period
a	1 set of piece parts each style	1	3 yearly
a			

GROUP D4 (d)

Mechanical endurance

High temperature endurance

4.7.1

4.7.2

Test Requir.	Specimens (May be from C1)	Permitted Failures † per Group	Period
a	3 mated pairs or sets min.	1	3 yearly
a			

GROUP D5 (d)

Reflection factor

Screening effectiveness

4.4.1

4.4.8

Test Requir.	Specimens (May be from C1)	Permitted Failures † per Group	Period
a	3 mated pairs or sets min.	1	3 yearly
a			

GROUP D6 (d)

Contact captivation

Rapid change of temperature

Climatic sequence

4.5.2

4.6.7

4.6.5

Test Requir.	Specimens (May be from C1)	Permitted Failures † per Group	Period
na	3 mated pairs or sets min.	1	3 yearly
a			
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