

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

CECC

Système Harmonisé d'Assurance de la Qualité
des Composants Electroniques

SPECIFICATION PARTICULIERE:

**CONNECTEURS COAXIAUX
POUR FREQUENCE
RADIOELECTRIQUE
Série SSMA**

Harmonized System of Quality Assessment for
Electronic Components

DETAIL SPECIFICATION:

**RADIO FREQUENCY
COAXIAL CONNECTORS
Series SSMA**

Harmonisiertes Gütebestätigungssystem für
Bauelemente der Elektronik

BAUARTSPEZIFIKATION:

**HOCHFREQUENZ-
KOAXIAL-STECKVERBINDER
Serie SSMA**



1

Edition
Issue
Ausgabe

CECC 22161-812

1987

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PREFACE

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

It relates to Series SSMA connectors covered by sectional specification CECC 22 160 and by blank detail specification CECC 22 161. 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)1767	July 1985	CECC(Secretariat)1851

CECC 22 161-812 Issue 1

[1]	page 1 of 9	[2] CECC 22 161 - 812. ..	
ELECTRONIC COMPONENT OF ASSESSED [3] QUALITY IN ACCORDANCE WITH GENERIC SPECIFICATION ..22.000 SECTIONAL SPECIFICATION ..22.160	[4]	Issue 1	

[5] DETAIL SPECIFICATION for

RADIO FREQUENCY COAXIAL CONNECTOR OF ASSESSED QUALITY:

SERIES

SSMAStyle: ..Right angle socket..PB mounting..female centre...
contact

Special Features & Markings:

Method of cable/wire* attachment: centre conductor - solder/clamp*

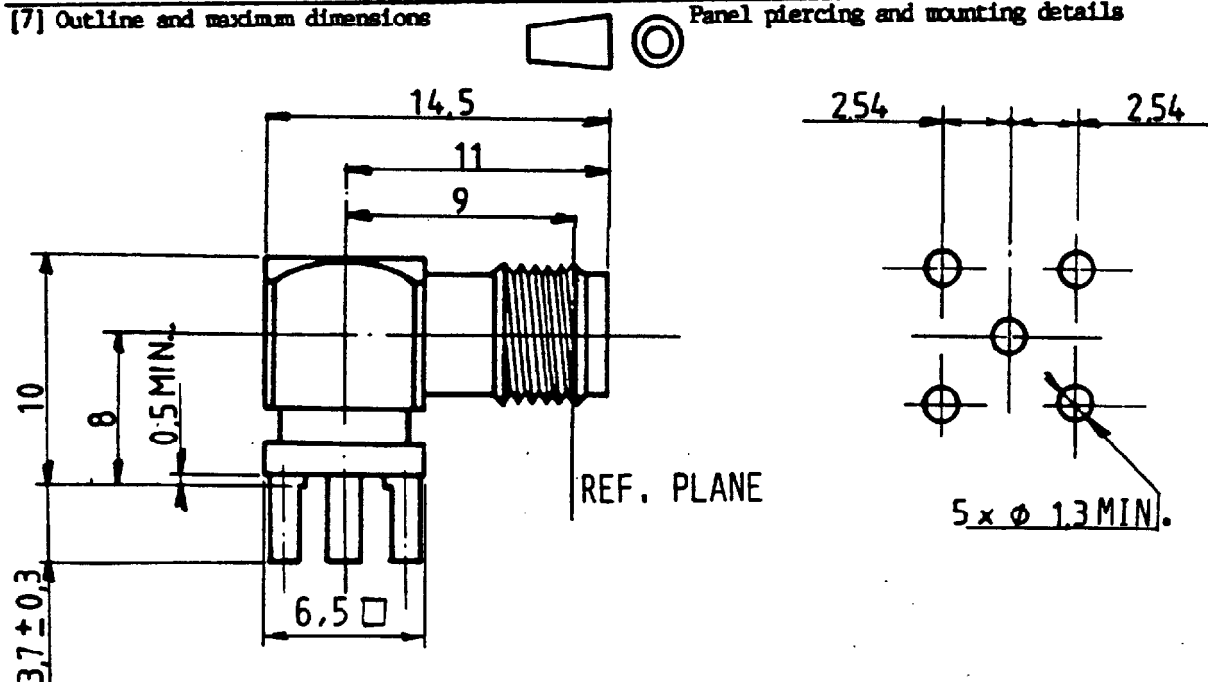
: outer conductor - solder/clamp/clip*

Mass: 1,8g.....(Max.) *Delete as appropriate

[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 dimensions and position of reference plane see CECC 22 160
Nominal panel for front mounting to be : 2,4 mm

The outline dimensions meet the requirements of

[8] Variants

Variant No.	Description of Variant	Relevant Cables		
		IEC 96	RG	National Cables
.....-01	GOLD PLATED			
.....				
.....				
.....				
.....				
.....				
.....				
.....				
.....				

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

[9] PERFORMANCE (including limiting conditions of use)

RATINGS AND CHARACTERISTICS		CECC 22 160 CLAUSE	VALUE	REMARKS
ELECTRICAL				
Reflection factor	Variant No./ Designation			Measurement freq. range
		4.4.1	na	Unmatched style
				
				
				
				
				
				
				
Centre contact resistance		4.4.2	< 4. mΩ ≤ 10. mΩ	Initial After conditioning
Outer conductor continuity		4.4.3	< 2.5 mΩ ≤ 7.5 mΩ	Initial After conditioning
Insulation resistance		4.4.4	> 1 GΩ ≥ 200 MΩ	Initial After conditioning
+ Proof voltage at sea level	-01	4.4.5	 0.75 kV	86 to 106 kPa
				
				
				
				
				
				
				
				
+ Proof voltage at 20 km altitude	-01	4.6.5	 150 V	4,4 kPa
				
				
				
				
				
				
				
				
				

+ Voltage values are r.m.s. values of a.c. at 50 to 60 Hz unless otherwise stated

RATINGS AND CHARACTERISTICS		CECC 22 160 CLAUSE	VALUE	REMARKS
ELECTRICAL				
+ Working voltage at sea level	Variant No./ Designation -01	4.4.8	250... V	86 to 106 kPa
				
				
				
				
				
				
				
				
				
+ Working voltage at 20 km altitude	Variant No./ Designation -01	4.4.8	75... V	4,4 kPa
				
				
				
				
				
				
				
				
				
Screening effectiveness		4.4.8	$Z_t \leq \dots na \dots \Omega$	Providing $\geq$ dB
				
				
				
				
				
				
				
				
				
ADDITIONAL ELECTRICAL CHARACTERISTICS				
MECHANICAL				
Contact captivation: - axial force - torque		4.5.2	na... N	CECC 22 000 method (or as specified)
			na... Nm	

+ Voltage values are r.m.s. values of a.c. at 50 to 60 Hz unless otherwise stated.

RATINGS AND CHARACTERISTICS		CECC 22 160 CLAUSE	VALUE	REMARKS
MECHANICAL				
Engagement and separation - torque		4.5.4	...na Nm max.	(to overcome friction of coupling nut)
Effectiveness of clamping device against cable pulling	Variant No./ Designation	4.5.5 (1)	na N	
Effectiveness of clamping device against cable torsion		4.5.5 (2)	na..... Nm	
Tensile strength of coupling mechanism		4.5.6	na..... N	
Coupling torque - normal			na Nm	
- proof			na Nm	
Bending moment		4.5.9	na..... Nm	Relative to reference plane
ADDITIONAL MECHANICAL CHARACTERISTICS				

RATINGS AND CHARACTERISTICS	CECC 22 160 CLAUSE	VALUE	REMARKS
ENVIRONMENTAL			
Bump	4.6.2	 390 m/s ² 4000 bumps	(40 g acceleration)
Vibration	4.6.3	 98 m/s ² 10 500 Hz	(10 g acceleration)
Shock	4.6.4	 490 m/s ² 1/2 sine ms	(50 g acceleration)
Climatic category	4.6.5	.55/.155/.21.	
Sealing (panel and barrier sealed connectors)	4.6.8	 na.....	100 to 110 kPa pressure differential
Sealing (hermetically sealed connectors)	4.6.9	 na.....	100 to 110 kPa pressure differential
ADDITIONAL ENVIRONMENTAL CHARACTERISTICS			
ENDURANCE			
Mechanical	4.7.1	500.....operations	
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 of precedence:

(1) Component identification	Variant No./ Designation	Identification
	-01	22 161-812 -01
		
		
		
		
		
		
		
		
(2) Identification of manufacturer:		
(3) 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:

- (1) Information prescribed in 2.4 of CECC 22 000 detailed above
- (2) Nominal characteristics impedance ..⁵⁰Ω.....
- (3) Assessment level code letter^H.....
- (4) Any additional marking required

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

- (1) Number of the detail specification CECC 22 161-⁸¹²Variant code
- (2) Assessment level code letter^H.....
- (3) Body finish (if more than one listed) .See variant number in [8]
- (4) Any additional information or special requirements

- related documents (if not included in CECC 22 000 or CECC 22 160):

.....

.....

- 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.

NOTE: Relevant information on a basic style should be entered as Variant 01.

[11] TEST SCHEDULES AND INSPECTION REQUIREMENTS - SERIES SSMA

ACCEPTANCE TESTS

GROUP A1

Visual examination

CECC 22 160 Clause	Level H			
	Test Required	IL	AQL	Period
4.2	a	S3	1,5 %	lot by lot
4.3.1	a	S3	4 %	lot by lot
4.5.7	a	S3	1,5 %	
4.5.4	na			
4.5.1	a	S3	1,5 %	
4.6.8	na			
4.6.9	na			
4.4.5	a	S3	4 %	

GROUP B1

Outline dimensions

Compatibility mechanical

Engagement and
separationGauge retention force
(resilient contacts)

Sealing (panel and barrier)

Sealing (hermetic)

Voltage proof

PERIODIC TESTS

GROUP C1(d)

Soldering

Insulation resistance

CECC 22 160 Clause	Test Required	IL	AQL	Period
4.6.1	a*	S3	4 %	1 yearly
4.4.4	a	S3	4 %	

For Notes relating to symbols: See page 9.

* For PB spills and centre contact

	CECC 22 160 Clause	Test Required	Specimens (may be from C1)	Permitted Failures per group†	Period
GROUP D1(d)					
Mechanical tests on cable clamping device	4.5.5	na			
Bending moment	4.5.9	na			
Tensile strenght 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			
Vibration	4.6.3	a	3 mated pairs or sets min.	1	3 yearly
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			
Mass	4.3.1	a	1 set of piece parts each style	1	3 yearly
GROUP D4(d)					
Mechanical endurance	4.7.1	a	3 mated pairs or sets min.		
High temperature endurance	4.7.2	a		1	3 yearly

For notes relating to symbols: See page 9.