

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 MCX**

Harmonized System of Quality Assessment for
Electronic Components

DETAIL SPECIFICATION:

**RADIO FREQUENCY
COAXIAL CONNECTORS
Series MCX**

Harmonisiertes Gütebestätigungssystem für
Bauelemente der Elektronik

BAUARTSPEZIFIKATION:

**HOCHFREQUENZ-
KOAXIAL-STECKVERBINDER
Serie MCX**



1

Edition
Issue
Ausgabe

CECC 22 221-809

1986

Cette page bleue doit être insérée après la page de garde de la CECC 22 221-809 Edition 1 (1984)

MODIFICATION 1 A LA CECC 22 221-809 (Edition 1):

SPECIFICATION PARTICULIERE:

CONNECTEURS COAXIAUX POUR FREQUENCE RADIO-ELECTRIQUE Série MCX

This blue page shall be inserted after the title page of CECC 22 221-809 Issue 1 (1984)

AMENDMENT 1 TO CECC 22 221-809 (Issue 1):

DETAIL SPECIFICATION:

RADIO FREQUENCY COAXIAL CONNECTORS Series MCX

Dieses blaue Blatt ist nach dem Titelblatt der CECC 22 221-809 Ausgabe 1 (1984) einzufügen

ÄNDERUNG 1 ZU CECC 22 221-809 (Ausgabe 1):

BAUARTSPEZIFIKATION:

HOCHFREQUENZ-KOAXIAL-STECKERVERBINDER Serie MCX

Supprimer les pages 1/2 et insérer les nouvelles pages 1/2, qui contiennent, sur la page 2, la modification.

La modification suivante a été effectuée à la page 2:

[9] Caractéristiques Electriques

sous

Résistance du contact central 4.4.2:

$\leq 5,0 \text{ m}\Omega$ Initiale
 $\leq 15,0 \text{ m}\Omega$ Après essai

a été modifié pour lire

$\leq 12 \text{ m}\Omega$ Initiale
 $\leq 22 \text{ m}\Omega$ Après essai

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

Remove pages 1/2 and insert new pages 1/2 which include change on page 2.

The following amendment was made on page 2:

[9] Performance, Electrical Ratings and Characteristics

under

Centre contact resistance 4.4.2:

$\leq 5,0 \text{ m}\Omega$ Initial
 $\leq 15,0 \text{ m}\Omega$ After conditioning

has been amended to read

$\leq 12 \text{ m}\Omega$ Initial
 $\leq 22 \text{ m}\Omega$ After conditioning

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

Die Seiten 1/2 sind herauszunehmen und die neuen Seiten 1/2 einzufügen. Sie enthalten eine Änderung auf Seite 2.

Folgende Änderung wurde auf Seite 2 vorgenommen:

[9] Daten, Kennwerte und Eigenschaften, Elektrisch

unter

Innenleiter-Kontaktwiderstand 4.4.2:

$\leq 5,0 \text{ m}\Omega$ Anfänglich
 $\leq 15,0 \text{ m}\Omega$ Nach Beanspruchung

wurde ersetzt durch

$\leq 12 \text{ m}\Omega$ Anfänglich
 $\leq 22 \text{ m}\Omega$ Nach Beanspruchung

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

CECC 22 221-809 Edition 1 Modification 1 1987

CECC 22 221-809 Issue 1 Amendment 1 1987

CECC 22 221-809 Ausgabe 1 Änderung 1 1987

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PREFACE

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

It relates to Series MCX connectors covered by sectional specification CECC 22 220 and by blank detail specification CECC 22 221. 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 document 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) 1740	June 1985	CECC (Secretariat) 1862

[1]	page 1 of ..9	[2] CECC 22 221 - 809	
ELECTRONIC COMPONENT OF ASSESSED [3] QUALITY IN ACCORDANCE WITH GENERIC SPECIFICATION ..CECC 22.000 SECTIONAL SPECIFICATION ..CECC 22.220	[4]		

[5] DETAIL SPECIFICATION for

RADIO FREQUENCY COAXIAL CONNECTOR OF ASSESSED QUALITY:

SERIES

MCX

Style: ..Socket hermetic.....

Special Features & Markings:

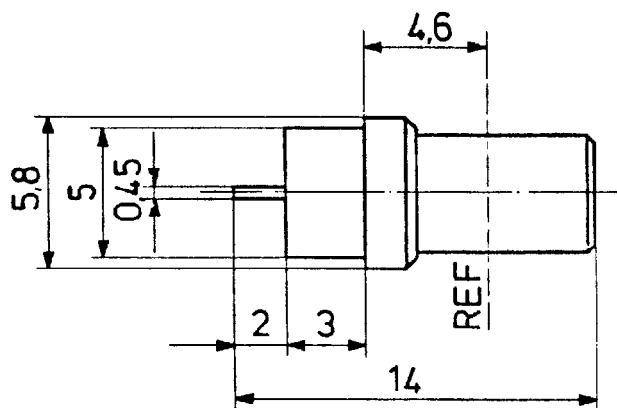
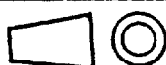
Method of cable/wire attachment: centre conductor - solder
: outer conductor - solder.....
for direct soldering to
circuit frame.....

Mass: 1.3 g.....(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 dimensions and position of reference plane see CECC 22 220

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	Relevant Cables		
		IEC 96	RG	National Cables
-01	Connector, gold plated			
.....				
.....				
.....				
.....				
.....				
.....				
.....				
.....				

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

RATINGS AND CHARACTERISTICS		CECC 22 220 CLAUSE	VALUE	REMARKS
ELECTRICAL				
+ Working Voltage at sea level	Variant No./ Designation			
	-01..		...335.... V	86 to 106 kPa (860 to 1060 mbar)
+ Working Voltage at 20 km altitude	-01..		85.... V	4,4 kPa (44 mbar)
	-01..	4.4.8	Z _t na.....	
ADDITIONAL ELECTRICAL CHARACTERISTICS				
MECHANICAL				
Contact captivation:		4.5.2	10.... N	CECC 22 000 method
- axial force			a.... Nm	

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

RATINGS AND CHARACTERISTICS	CECC 22 220 CLAUSE	VALUE	REMARKS
MECHANICAL			
Engagement and separation - axial force	4.5.4	..02.. N max. ..02.. N min.	
engagement separation			
Variant No./ Designation			
Effectiveness of clamping device against cable pulling	4.5.5 (1)	..02..... N	
Effectiveness of clamping device against cable torsion	4.5.5 (2)	..02..... Nm	
Bending moment	4.5.9	..0,5..... Nm	Relative to reference plane
ADDITIONAL MECHANICAL CHARACTERISTICS			
ENVIRONMENTAL			
Vibration	4.6.3	...98... m/s ² .10..to.500Hz	(10.g acceleration)
Climatic Category	4.6.5	.55/.155/.21.	
Sealing (panel and barrier sealed connectors)	4.6.8	..02.....	100 to 110 kPa pressure differential (1000 to 1100 mbar)

RATINGS AND CHARACTERISTICS	CECC 22 220 CLAUSE	VALUE	REMARKS
ENVIRONMENTAL			
Sealing (hermetically sealed connectors)	4.6.9	$5 \frac{\text{Pa cm}^3}{\text{sec}}$	100 to 110 kPa pressure differential (1000 to 1100 mbar)
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 .221-809/01....
		
		
		
		
		
		
		
(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 characteristic 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 22 221-809 /Variant
code
- (2) Assessment level code letter^H.....
- (3) Body finish (if more than one listed) see variant numbers in [8]
- (4) Any additional information or special requirements

- related documents (if not included in CECC 22 000 or CECC 22 220):
.....
.....

- 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 MCX
Details of tests and quality assessment inspection requirements for Levels H and U are given in 5.1 of CECC 22 220.

ACCEPTANCE TESTS		Level H			
	CECC 22 220 Clause	Test Required	IL	AQL	Period
GROUP A1					
Visual examination	4.2	a	S 3	1,5 %	
GROUP B1					
Outline dimensions	4.3.1	a	S 3	4 %	
Compatibility mechanical	4.5.7	a	S 3	1,5 %	
Engagement and separation	4.5.4	na			lot
Gauge retention force (resilient contacts)	4.5.1	a	S 3	1,5 %	by lot
Sealing (panel and barrier)	4.6.8	na			
Sealing (hermetic)	4.6.9	a	II	0,025 %	
Voltage proof	4.4.5	a	S 3	4 %	

PERIODIC TESTS					
	CECC 22 220 Clause	Test Required	IL	AQL	Period
GROUP C1(d)					
Soldering	4.6.1	a	S 3	4 %	1 yearly
Insulation resistance	4.4.4	a	S 3	4 %	1 yearly

For notes relating to symbols: See page 9.

	CECC 22 220 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	3 mated pairs or sets min.	1	3 yearly
Bending moment	4.5.9	a			
GROUP D2(d)					
Contact resistance	4.4.2	a	3 mated pairs or sets min.	1	3 yearly
Outer conductor continuity	4.4.3	a			
Vibration	4.6.3	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			

For notes relating to symbols: See page 9.