

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

CECC

Système Harmonisé d'Assurance de la Qualité
des Composants Electroniques

SPECIFICATION PARTICULIERE:

COUPLEURS A FIBRES OPTIQUES

Type: Selectif en longueur d'onde
Multiplexeur/Démultiplexeur
1 x 2 portes bidirectionnel

Style: Configuration A, Type de fibre A1.a/b/c

Harmonized System of Quality Assessment for
Electronic Components

DETAIL SPECIFICATION:

FIBRE OPTIC BRANCHING DEVICES

Type: Wavelength Selective
Multiplexer/Demultiplexer
1 x 2 Ports Bidirectional

Style: Configuration A, Fibre Type A1.a/b/c

Harmonisiertes Gütebestätigungssystem für
Bauelemente der Elektronik

BAUARTSPEZIFIKATION:

FASEROPTISCHE VERZWEIGER

Bauart: Wellenlängenselektiver
Multiplexer/Demultiplexer
1 x 2 Tore zweiseitig gerichtet

Bauform: Aufbau A, Faserart A1.a/b/c



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Edition
Issue
Ausgabe

CECC 81 102-802

1994

Information about the System may be obtained from:



FEN e.V. Secretariat
and
CECC General Secretariat
Gartenstraße 179
D - 60596 Frankfurt
Telephone: Int. + 49 69 639171
Telefax: Int. + 49 69 639427

or from the National Authorized Institutions
of the participating countries listed
who can supply copies of:

- 1 The Internal Regulations of the FEN e.V.
- 2 The Rules of Procedure of the System
- 3 CECC Specifications of the FEN and National Specifications for the System
- 4 CECC 00 200: Register of Firms, Products, and Services Approved under the CECC System
- 5 CECC 00 300: Register of National Documents Implementing CECC Publications and CECC European Standards
- 6 CECC 00 301: Register of CECC Specifications and Related Detail Specifications
- 7 Other CECC Publications and publicity documents

AUSTRIA
Österreichischer Verband für Elektrotechnik (ÖVE)
Eschenbachgasse 9
A-1010 VIENNA

BELGIUM
Comité Electrotechnique Belge
Avenue F. Van Kalken, 9
B-1070 BRUSSELS

DENMARK
Dansk Elektroteknisk Komite
Dansk Standard
Electrotechnical Sector
Baunegårdsvej 73
DK-2900 HELLERUP

FINLAND
Finnish Electrotechnical Standards Association (SESKO)
P.O. Box 134
SF-00211 HELSINKI 21

FRANCE
Union technique de l'Electricité
Participation française au CECC
F-92052 PARIS La Défense Cedex 64

GERMANY
Deutsche Elektrotechnische Kommission im DIN und VDE (DKE)
Stresemannallee 15
D-60596 FRANKFURT

IRELAND
EOLAS - The Irish Science and Technology Agency
Glasnevin
IRL-DUBLIN 9

ITALY
Comitato Elettrotecnico Italiano (CEI)
Viale Monza, 259
I-20126 MILAN

NETHERLANDS
Nederlands Elektrotechnisch Comité (NEC)
Kalfjeslaan 2
P.O. Box 5059
NL-2600 GB DELFT

NORWAY
Norsk Elektroteknisk Komite (NEK)
P.O. Box 280
Skøyen
N-0212 OSLO 2

PORTUGAL
Instituto Português da Qualidade
Rua José Estevão, 83A
P-1199 LISBOA CODEX

SPAIN
New Spanish Member
to be determined.

SWEDEN
Svenska Elektriska Kommissionen (SEK)
Box 1284
S-16428 KISTA-STOCKHOLM

SWITZERLAND
Schweizerischer Elektrotechnischer Verein (SEV)
Luppenstr. 1
CH-8320 FEHRLTORF

UNITED KINGDOM
UK Electronic Components Policy Council
Electrical Department
British Standards Institution
2, Park Street
GB-LONDON W1A 2BS

[8] Variants:

Variant No.	Operating wavelength range (μm)	IEC fibre type	Pigtail type
A-01	0,80-0,90 / 1,2-1,4	A1.a	loose tube 0,5mm/1,1mm
A-02	0,80-0,90 / 1,2-1,4	A1.a	tight jacket 2,7mm O.D
A-03	0,80-0,90 / 1,2-1,4	A1.b	loose tube 0,5mm/1,1mm
A-04	0,80-0,90 / 1,2-1,4	A1.b	tight jacket 2,7mm O.D
A-05	0,80-0,90 / 1,2-1,4	A1.c	loose tube 0,5mm/1,1mm
A-06	0,80-0,90 / 1,2-1,4	A1.c	tight jacket 2,7mm O.D

Transfer matrix and numbering of ports:



Variants: A-01, A-02, A-03, A-04

Operating wavelength range: 0,80 μm - 0,90 μm

Launch Port	Receive Ports		
	1	2	3
1	$a_{11} = x$	$a_{12} \leq 1,5$	$a_{13} \geq 30$
2	$a_{21} \leq 1,5$	$a_{22} = x$	$a_{23} \geq 50$
3	$a_{31} \geq 30$	$a_{32} \geq 50$	$a_{33} = x$

Operating wavelength range: 1,2 μm - 1,4 μm

Launch Port	Receive Ports		
	1	2	3
1	$a_{11} = x$	$a_{12} \geq 15$	$a_{13} \leq 1,5$
2	$a_{21} \geq 15$	$a_{22} = x$	$a_{23} \geq 50$
3	$a_{31} \leq 1,5$	$a_{32} \geq 50$	$a_{33} = x$

Note 1: Values in dB.

Note 2: X = Values not specified.

Variants: A-05, A-06

Operating wavelength range: 0,80 μm - 0,90 μm

Launch Port	Receive Ports		
	1	2	3
1	$a_{11} = x$	$a_{12} \leq 1$	$a_{13} \geq 30$
2	$a_{21} \leq 1$	$a_{22} = x$	$a_{23} \geq 50$
3	$a_{31} \geq 30$	$a_{32} \geq 50$	$a_{33} = x$

Operating wavelength range: 1,2 μm - 1,4 μm

Launch Port	Receive Ports		
	1	2	3
1	$a_{11} = x$	$a_{12} \geq 15$	$a_{13} \leq 1$
2	$a_{21} \geq 15$	$a_{22} = x$	$a_{23} \geq 50$
3	$a_{31} \leq 1$	$a_{32} \geq 50$	$a_{33} = x$

Note 1: Values in dB.

Note 2: X = Values not specified.

[9] SUPPLEMENTARY INFORMATION

Marking of the component (see 2.7.2 of EN 181 000):

1. Manufacturer's identification mark
2. Manufacturer's date code
3. Manufacturer's part number
4. Variant letter number
5. Identification of the ports

Marking of package (see 2.7.3 of EN 181 000):

1. Manufacturer's identification mark
2. Manufacturer's part number
3. Manufacturer's date code
4. Variant identification number
5. Type designation
6. Assessment level

Ordering information:

CECC 81 102-802-(Variant number)

Related documents:

Not applicable.

Certified records of released lots:

Certificate is required (see 3.5 of EN 181 000).

Structural similarity:

See 3.2 of EN 181 000.

[10] TABLE 1:
FIXED SAMPLE INSPECTION TEST SCHEDULE

Test Sequence (Note)		EN 181 000 Clause	Sample Size
GROUP 0	Visual inspection Dimensions Insertion loss between conducting and isolated ports at 0,85 μm Insertion loss between conducting and isolated ports at 1,31 μm	4.5.1 4.5.2 4.5.5 4.5.5	40
GROUP 1	Wavelength dependence of insertion losses	4.5.7	15
GROUP 2	Cold Dry heat Damp heat	4.6.17 4.6.18 4.6.19	10
GROUP 3	Change of temperature Climatic sequence	4.6.22 4.6.20	10
GROUP 4	Vibration Pulling Drop test	4.6.1 4.6.4 4.6.14	5

Note: For details, measurements and performance requirements see table 4.