



*A wide variety of transmissionline topologies and pcb-parameters like permittivity, substrate thickness, and board-stackup are applied by customers. These parameters have a strong impact on the high frequency performance of the mounted connector. Please note, that the given layout is not optimised to fit all of the possible board configurations regarding RF-performance, it represents a recommendation for optimum solderability of the connector. In order to guarantee optimum high frequency properties of the connector, an RF-analysis of the connector to board transition is recommended.

All dimensions are in mm; tolerances according to ISO 2768 m-H

Interface

According to Rosenberger Mini-Coax

Documents

N/A

Material and plating

Connector parts

- Center contact
- Outer contact male
- Outer contact female
- Body
- Dielectric

Material

- CuBe or equiv.
- CuBe
- Brass
- Brass
- PTFE

Plating

- AuroDur®, gold plated
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RF_35/09.14/6.2

Technical Data Sheet

Rosenberger

Mini-Coax

4 Channel Block
Straight

23C12E-40ML5

Electrical data

Impedance	50 Ω
Frequency	DC to 20 GHz
Return loss	≥ 25 dB @ DC to 3 GHz ≥ 20 dB @ 3 GHz to 6 GHz ≥ 16 dB @ 6 GHz to 20 GHz
Insertion loss	≤ 0.05 x $\sqrt{f \text{ [GHz]}}$ dB
Insulation resistance	≥ 1GΩ
Center contact resistance	≤ 10 mΩ
Outer contact resistance	≤ 3 mΩ
Test voltage (at sea level)	750 V rms
Working voltage (at sea level)	500 V rms
RF-leakage	≥ 80 dB @ DC to 1 GHz ≥ 60 dB @ 1 GHz to 4 GHz

- Connector only, VSWR in application depends decisive on PCB layout -

Mechanical data

Mating cycles	≥ 500
Engagement force	max. 16 N typical 10 N
Extraction force	max. 24 N typical 21 N

Environmental data

Temperature range	-40 °C to +125 °C
Climatic category	IEC 60068-2-1 40/85/21
Dry heat	IEC 60068-2-2
Damp heat	IEC 60068-2-78
Shock	IEC 60068-2-27 (50g halfsinus, 2 shocks/axis during 11 sec.)
Max. soldering temperature	IEC 61760-1, +260 °C for 10 sec.
RoHS	compliant

Tooling

N/A

Suitable cables

N/A

Weight

Weight 1.9 g/pce

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
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