

Product Line Information for Micro-MaTch Board-Board & Ribbon-Board Connectors

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AMP Micro-MaTch Miniature Connector System



Product Facts

- One of the smallest systems available at 1.27 mm
 - UL-recognized: File No. E28476, Vol. 23, Section 4
 - High performance/cost ratio
 - Wire connectors supplied on-tape and suitable for mass termination of 28 AWG [0.08 mm² to 0.09 mm²] ribbon cable
 - Tin plated contact design
 - Guaranteed minimum contact force of 2.0 N
 - Fretting corrosion proof thanks to additional positioning spring member
 - Fully plated contacts: no bare edges and no migration of corrosion products
 - Contacts fully protected by polyester housings, except for side-entry female board connector
 - Full range of application tooling from hand tool to fully automated equipment
 - Board connectors supplied on-tape.
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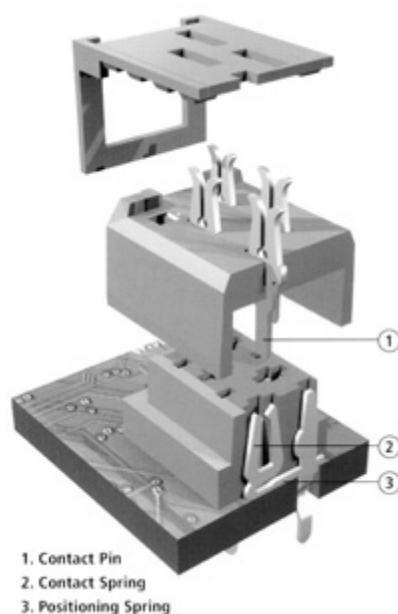
Description

Miniaturization and the trend toward higher density of electronic functions on a substrate led to the introduction of smaller interconnection systems.

The AMP Micro-MaTch connector family, with its contact spacing of 1.27mm, fully complies with the electronic packaging requirements of today and the future. The system offers a range of board and wire connectors, enabling a variety of wire-to-board and board-to-board interconnections. The AMP Micro-MaTch contact concept is essentially different from other systems available. By its design, the traditional failure mode in tinplated connections, fretting corrosion, is prevented. Due to an additional positioning spring in the female part, relative movements caused by vibrations/thermal expansion between male and female contacts are absorbed. By preventing movements on the contact spot, a gas tight connection can be guaranteed under all circumstances. The contact spring is located in the board connector and not in the cable connector, which is usually the case. The counterpart, incorporated in the cable connector, is a simple pin, either with an insulation displacement section, suitable for the mass termination of cable or with a kinked solder leg to be soldered onto a pc board.

The separation of these two basic functions of the contact system (contact force generation and wire termination), enables the independent optimization of both functions and also leads to relatively simple contact shapes. Because of their shapes, contacts can be post-plated, leaving no bare edges in the contact and wire slot area.

The contact spring system features an additional spring member (the positioning spring), which compensates positional tolerances. In this way the contact spring can be fully optimized for its basic function, so that the relatively high contact force, required for tin plated contact systems, can be guaranteed under all circumstances.



Technical Data

Flammability Rating:

per UL 94 V-0

Contact Resistance:

10 m Ω max.

Insulation Resistance:

1,000 M Ω min.

Nominal Voltage:

230 V

Current Rating:

1.5 A max.

Temperature Range:

-40°C to +105°C (operating)

Mating Force:

5 N max. per contact

Unmating Force:

1 N min. per contact

PC Board Connectors

PC Board Thickness:

1.6 mm nominal

PC Board Hole Diameter:

0.8 mm for solder connectors

Wire Connectors

Cable Type:

Ribbon cable, UL Style 2651

Conductor Spacing:

1.27mm (.050")

Conductor Diameter:

Solid 0.30 mm diameter

Stranded 0.08 mm²

7 x 0.12-0.13 mm

Insulation Type:

Semi-rigid PVC

Insulation Diameter:

0.9 ± 0.1 mm

Technical Documents

AMP Product Specification:

108-19052

AMP Application Specification:

114-19016, 114-19051

(You can search for the above documents using the Document Search option in the left hand navigation of this page.)
