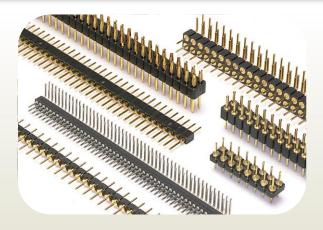


PRODUCT OVERVIEW Board To Board Interconnects

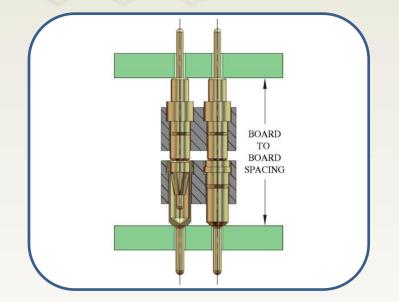




Typical Board-To-Board Connection

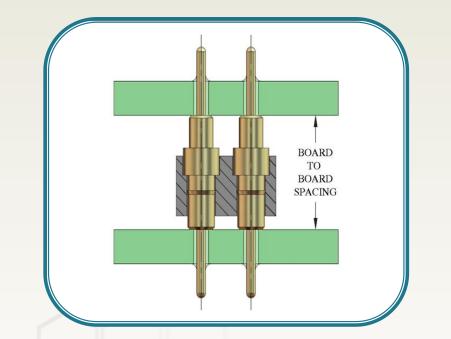
In most board-to-board applications, designs require that the boards are pluggable. This allows for easy replacement in the event of board failure, more streamlined manufacturing for applications with multiple add-on board options and ease of upgradeability or accommodation of future design changes.

In these type of applications, the same male headers in single and dual-row configurations are mated with female sockets. Mating different combinations of headers and sockets will create different between-board spaces. The header tail diameters need to be within the mating socket's diameter acceptance range.





Permanent Connection

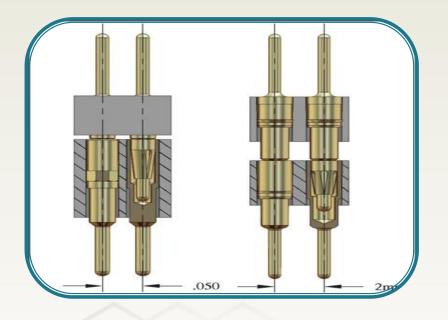


In some board-to-board applications, a designer may simply want to make a permanent connection between two boards.

This can be readily achieved by soldering a through-hole header to both the main (mother) board and mezzanine (daughter) board.



Fine-Pitch Board-to-Board Connection



Mill-Max has addressed the need to fit more components in less packaging space due to the ever-increasing demand for smaller and smaller electronic products with our fine-pitch connectors.

We offer standard interconnects in 2mm, .070", .050" pin-to-pin spacing, and have the capability to produce application-specific products in 1mm and 0,8mm pin-to-pin spacing, as well.

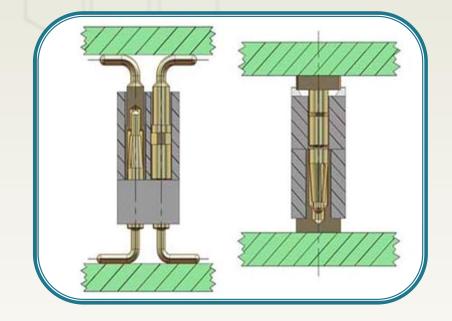


SMT Board-to-Board Connection

As a means of accommodating PC boards that are comprised entirely of surface mount components, surface mount headers and sockets are available in a variety of packages, from fine-pitch to .100" centers.

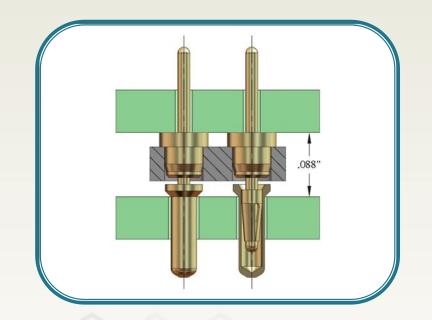
These connectors eliminate the need for added processes, such as having to drill holes and wave solder pc boards that are otherwise comprised exclusively of surface mount components.

These connectors can undergo reflow soldering with the other surface mount components, adding no extra steps to the soldering process.





Tightly Spaced Board-to-Board Connection



For applications requiring boards to be mated very closely together to save vertical space, a carrier socket can be a perfect part of the solution. Mill-Max can provide virtually any receptacle on a carrier, in almost any configuration.

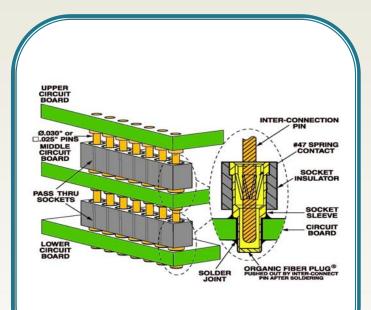
The carrier socket is placed in position, allowing the receptacles to fall into the holes in a pc board. Only the shoulder of the receptacle rests on the surface of the pc board.

After wave soldering, the carrier is removed and only the height of the shoulder is left above the board. Effectively, the entire "insulator" has been eliminated.

Next, a male header is mated to provide for a very tightly-spaced, pluggable board-to-board interconnect.



Multiple Board Connection



When requirements dictate that three boards be joined together in a pluggable fashion, Mill-Max has addressed this need with our series 834 and 835 Organic Fibre Plug Pass-Through Sockets[®].

The Organic Fibre Plug[®] (OFP) receptacle is an open-bottom, throughhole part with a "plug" made of organic material installed at the bottom. This plug protects the contact area from solder and flux contamination when the socket is installed into plated-through holes in a pc board.

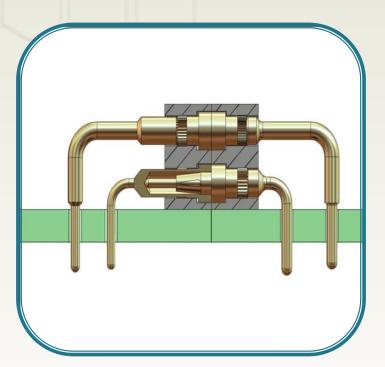
A process referred to a "intrusive reflow" is employed, whereby, solder is screen-pasted onto a pc board around plated through-holes. The sockets are then installed in the holes and the boards are put in a reflow oven to complete the soldering process. Now the socket is reliably soldered to the board while the fibre plug has kept the inner contact area fully protected.

When the mating header is installed, the leads on the header simply push the fibre plugs out of the receptacles. Ensuring the leads are long enough, the same header can then be installed into the next pc board as well creating a pluggable, three-board interconnect.



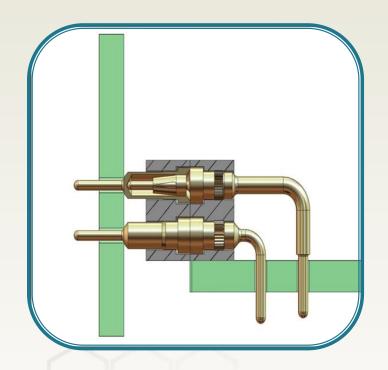
Right-Angle Horizontal Board-To-Board Connection

For applications requiring boards to be plugged in on a horizontal plane, Mill-Max offers rightangle sockets and headers.





Right-Angle Perpendicular Board-To-Board Connection

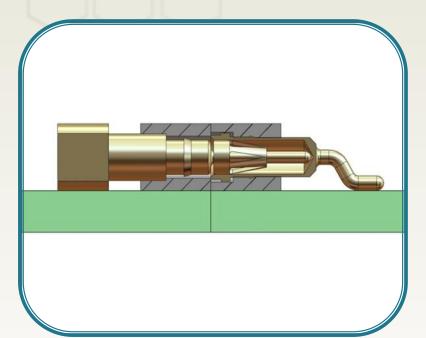


Right-angle sockets and headers can also be used in tandem with vertical mount sockets and headers to create a perpendicular interconnect between two boards.



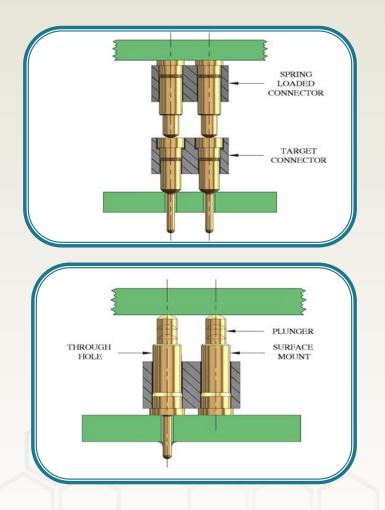
"Z-Bend" SMT Board-To-Board Connection

As a means of connecting two boards on a horizontal plane using surface mount technology, our "Z-Bend" series 310, 351, 800 and 801 are the ideal solution.





SPRING-LOADED CONNECTORS



For applications where there is a wide variance on the spacing between two boards due to stack-up tolerances, Mill-Max's spring-loaded connectors are an excellent solution.

Our spring-loaded pins interface with pads on a mating pc board to provide for a highly reliable connection that offers true compliancy for almost any design. Moreover, for applications where the between-board space is unusually wide, Mill-Max offers Target Connectors to take up some of the gap. The Target Connector will help minimize the length of the lead on the spring pin connector so damage during handling doesn't occur due to the exposing of overly-long plungers.

Available in both SMT and through-hole, loose pin, SIP, dual-row or custom configurations in nonstandard pin spacing, Mill-Max's spring pin series help you connect with confidence.



Click the button below for more information and to browse our selection of **Board to Board Interconnects**





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