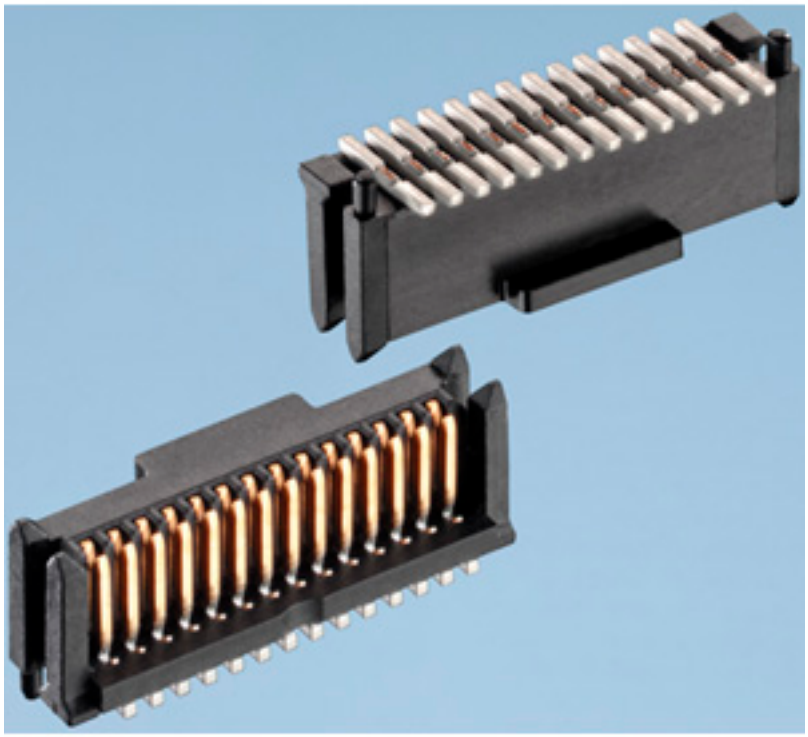
Mezzanine connector offers a high mis-mating tolerance, low tolerance stack-up



ERNI has developed a mezzanine connector with a hermaphroditic design that combines male and female connector halves into one solution to reduce inventory cost. The MicroStac connector's unique contact design incorporates two points of contact for high reliability in applications where shock and vibration are encountered. As a result of the secure and robust mating interface, the MicroStac mezzanine connector can handle up to 1.6 Amp per contact.

Available in a 5mm stack height, the MicroStac mezzanine connector offers a high mis-mating tolerance of up to 0.7mm of side-to-side 'float' and ±4° of angular misalignment between the two connector halves and their respective printed circuit boards. This latitude allows multiple connectors to be placed between boards without concern of misalignment due to tolerance stack-up. This also provides design engineers with maximum flexibility to place the connectors where needed for the most efficient PCB routing. The contact design provides up to 1.5mm of wipe length, for use in applications requiring up to 6mm stack height. Guides molded into the connector body improve ease of mating.

"The MicroStac connector system not only offers exceptional flexibility in a compact design, but also cost and time savings. Instead of requiring a male and female connector to create a mated pair, the MicroStac's hermaphroditic design enables the connectors to mate with themselves. This means only one part number is required for each mated pair, resulting in both reduced inventory cost and supply

chain complexity," said Sean Riley, director sales and marketing at ERNI.

For easy, error-free, board placement and processing, the MicroStac connector's body incorporates an integrated vacuum pickup point, as well as board locating pegs. Tape and reel packaging further enhances high-speed placement on the PCB. Instead of stamping and bending contacts for SMT termination, ERNI's leads are formed in the stamping die. This process provides guaranteed coplanarity of 0.1mm and virtually eliminates processing defects with a termination lead that's easily inspected. In addition, the contacts are designed to consume as much area as possible under the connector body, maximizing board retention for reliable service in almost any application.

MicroStac connectors are available in 6, 10, 12, 14, 50, and 54 positions with a 5mm stack height. Typical pricing starts at $.93 for a 6-position connector with a lead time of 8 weeks.

For more information, visit www.erni.com [1]

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[1] http://www.erni.com