

Aries Electronics, an international manufacturer of standard, programmed and custom interconnection products, recently added new BGA Switch-A-Pitch Adapters that allow for smaller pitch devices to be used with larger pitch boards. The new adapters in the series adapt 0.40 mm devices to boards with a 1.00 mm pitch.

Aries' BGA Switch-A-Pitch Adapters, part of the extensive line of Correct-A-Chip Adapters, drastically reduce costs by making possible the use of newer, tighter pitch devices with larger pitch boards, which are readily available and therefore more economical, vastly lowering the PCB cost.

The adapters have tops with BGA landing pads on a 0.40 mm pitch and bottoms fitted with BGA balls on a 1.00 mm pitch. Open space around the adapter tops provides space for further components to be added to the design at a lower cost.

High density interconnect (HDI) construction is reduced and the need for laser-drilled microvias on the motherboard is eliminated by adapting tighter pitch devices to larger footprints. The BGA Switch-A-Pitch Adapters enable the use of standard line and trace spacing down to 0.003" (0.076 mm).

The innovative adapters can operate at up to 221 degrees F (105 degrees C) for FR4 and up to 266 degrees F (130 degrees C) for lead-free. The recommended PCB size for a 1.00 mm pitch is 0.020" (0.50 mm). Boards are 0.062" (1.57 mm) thick FR4 or Rogers 370 HR with 1/2 oz copper traces on both sides. Solder spheres are 63/37 tin/lead or lead-free SAC 305. The adapters feature non-solder mask defined (NSMD) pads finished with electroless nickel immersion gold (ENIG).

As part of Aries' Correct-A-Chip Adapter series, the Switch-A-Pitch Adapters save users both time and money. Correct-A-Chip Adapters allow the use of different termination styles or pitches on one board designed for an alternative style or pitch and can be fitted with either active or passive components for added functionality.

Aries adapters are available as adapter only or as a turnkey solution with mounted devices. Specializing in custom design and production, Aries offers standard products as well as special materials, platings, sizes and configurations upon request.