

## Using Socket Carriers to Mount Power Converters on PCBs Speeds Assembly, Saves Energy, and Simplifies Repair

### THE CHALLENGE

High-value printed circuit boards (PCBs), used in applications such as mainframe computers, automatic test equipment, industrial control systems, and telecommunications systems, frequently incorporate single or multiple AC/DC or DC/DC converters, power supplies, and battery packs. During assembly, conventional approaches to mounting the converters typically involve soldering them to the PCB via wave or convection oven (i.e. reflow) methods.

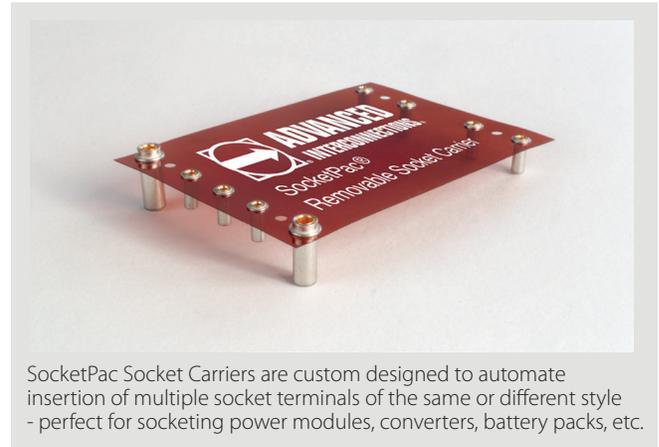
Power converters can be relatively bulky components (often about the size of a deck of cards) with considerable thermal mass. Because the converters act like large heat sinks, board makers must compensate by employing extended thermal exposure times to complete the soldering operation successfully. This lengthens production time, boosts the usage of energy, and drives up board assembly costs, especially for large production runs where individual boards carry multiple power converters.

#### TYPICAL APPLICATIONS

- DC/DC Converters
- Power Converters
- Splitters
- I/O Voltage Modules
- Transformers
- Test Jack Locations

Aside from assembly issues, there is an important downstream concern related to potential field failures of PCB-mounted power converters and the need to minimize system downtime when making repairs. In the case of boards with conventionally soldered-on converters, the repair strategy is often limited to two choices:

- Swap out a bad board for a good one (fast if expensive spare boards are kept on hand; costly and time-consuming if a board must be shipped in from a depot).

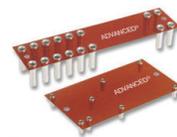


SocketPac Socket Carriers are custom designed to automate insertion of multiple socket terminals of the same or different style - perfect for socketing power modules, converters, battery packs, etc.

- Manually remove and replace the failed converter with a good one by a hand-held soldering iron (labor intensive, time-consuming, risky to the board, and costly).

Clearly, a better alternative is needed to simplify assembly, shorten production time, cut energy costs, and facilitate field rework and repair operations.

### THE ADVANCED® SOLUTION



SocketPac® Power Converter Socket Carriers from Advanced Interconnections utilize our proven Peel-A-Way® Removable

Terminal Carrier system to overcome all of the problems relative to mounting power converters on printed circuit boards. This same approach is also beneficial for mounting heat-sensitive battery packs on printed circuit boards because it eliminates the need to subject them to the thermal stresses of wave or reflow soldering during board assembly.

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