ABSTRACT

Battery Pack with Circuit Board having Nested Castellations for Sub-Flush Power Wire Soldering

A streamlined battery pack is disclosed. The battery pack contains at least two battery cells. A printed circuit board (PCB) of the battery pack includes a protection control module. The PCB has castellations along its perimeter in which wires are soldered. The wires can include wires for power egress from the battery cells. The castellations are sized so that the egress wires can be soldered therein without creating any salient regions on the outline of the PCB. The PCB has a surface area that is no greater than an end of the battery pack, and thereby does not exceed the outer diameter of the remainder of the battery pack. The PCB and the other battery pack components can be substantially enveloped in a polyimide material. The components of the battery pack, including the PCB are arranged, sized and configured, such that they do not create protuberances in the enveloping material.

Figure 1