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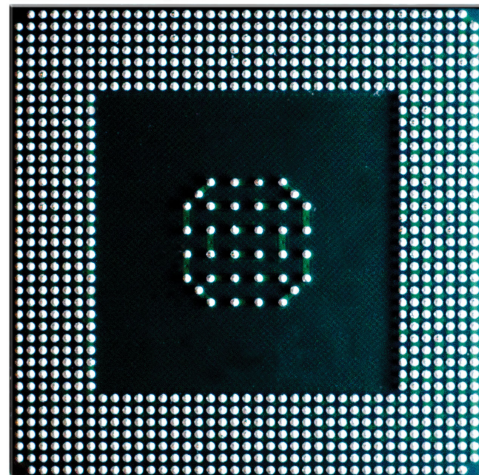
## Practical Components Helps Diagnose and Treat Hip Failure

### *PBGA 928-Hip-A large component with a single small die is a recipe for Hip (Head In Pillow) failure*

Head In Pillow (Hip) soldering defects are common with modern SMT component placement. Practical Components has created a component that is specifically designed to be susceptible to this defect. The PBGA 928-Hip has a large 4x4 body size, 928 balls made and just a single small die designed to have a propensity towards this particular Hip (also known as ball-in-socket) soldering defect.

The Head in Pillow effect is when the solder joint and the sphere are touching but no intermetallic layer is formed. Lead Free assemblies have increased warpage due to their higher processing temperatures. Mastering the correct soldering profile and paste is essential.

Our PBGA 928-HiP is maximized to create the Hip effect due to component warpage because of it's large plastic body size combined with the small single die. This combination creates the maximum thermal expansion mismatch.



These components have a 1.0mm pitch with perimeter ball alignment and the tray quantity is 21. Minimum order quantities may apply.

**About Practical Components®**

Since 1996, Practical Components has been the world's leading supplier of dummy components, which are the exact mechanical equivalents of live components, used when only the physical properties of the components are required. These components can cost as much as 80% less than live components, making them ideal for testing of solder processes, machine setup and other process evaluations. Practical Components is headquartered in Los Alamitos CA and has a worldwide distribution network. For more information, visit [www.practicalcomponents.com](http://www.practicalcomponents.com).