

# Practical Components helps diagnose and treat Head-in-Pillow failure

**Head-in-Pillow** (HiP) soldering defects are common with modern SMT component placement. As a result, [Practical Components](#) has introduced the **PBGA 928-HiP**, a component that is designed specifically to be susceptible to HiP defects. It features a large 4×4 body size, 928 balls and a single small die that has a propensity toward the ball-in-socket HiP soldering defect.

The HiP effect takes place 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. **PBGA 928-HiP** is maximized to create the HiP effect due to component warpage with its large plastic body size combined with the small single die. This combination creates the maximum thermal expansion mismatch. These components have a 1.0 mm pitch with perimeter ball alignment.



# Practical Components helps diagnose and treat Head-in-Pillow failure

Supplied by:



INTERTRONICS

12a Station Field Industrial Estate, Banbury Road, Kidlington

Oxfordshire England OX5 1JD

t 01865 842842 e [info@intertronics.co.uk](mailto:info@intertronics.co.uk)

Last updated: May 2018

Statements, technical information and recommendations contained herein are based on tests we believe to be reliable but they are not to be construed in any manner as warranties expressed or implied. The user shall determine the suitability of the product for his intended use and the user assumes all risk and liability whatsoever in connection therewith.