



September 30, 2004

Subject: UT54ACS164245S product, Lead Fatigue, 48 Lead Flatpack

Dear Customer:

Aeroflex Colorado Springs (Aeroflex) strives to ensure our customers are provided products that meet their high quality and reliability requirements. We review our quality data and inputs from our customers to identify areas of concerns and opportunities for continuous improvement. A lead fatigue concern has been identified with the 48 lead ceramic bottom braze package used for the referenced product. The package successfully passes all MIL-PRF-38535 and MIL-STD-883 requirements including lead integrity testing. However, lead fatigue breakage was observed during board level vibration testing by a customer. We feel it is important that you are aware of this problem. It has been determined that this issue can be addressed by staking the device to prevent vibration fatigue.

Root Cause

It was determined that a clamping tool used by the package manufacturer of the package resulted in an indentation across the leads near the package body. This is a 20 mil pitch bottom brazed flatpack package. The smaller lead size of this package is more susceptible to potential lead breakage with the scoring.

Corrective Action

The package has already been retooled at another package manufacturer. There is no scoring of the leads on the current package.

All other packages have been verified as not having this condition.

Preventative Action

The packaging requirements document is being revised to not allow this condition on any future package designs.

Disposition of Affected Material

This problem is restricted to the UT54ACS164245S product, SMD number 5962-98580, with date codes from March 2001 (0012) to May 2002 (0220). All affected customers are being notified of this problem. The susceptibility to lead breakage due to vibration can be addressed by staking the device. Please contact your local Aeroflex sales office if you want to pursue product replacement.

We regret any inconvenience this issue may have caused you. Please contact me if you have any further questions. I can be reached by phone at (719) 594-8085, or by e-mail at [Paul.Coe@Aeroflex.com](mailto:Paul.Coe@Aeroflex.com).

Sincerely,

Paul D. Coe  
Aeroflex Colorado Springs  
Quality Assurance Manager