



## **CUSTOMER ADVISORY ADV0305**

### **ADDITIONAL SOURCE FOR ALTERA'S POWER QUAD FLAT PACK PACKAGE FOR THE FLEX 10K AND APEX DEVICE FAMILIES**

#### **Change Description:**

Altera is adding Amkor's thermally enhanced MQFP PowerQuad<sup>®</sup> package as an additional source for Altera's Power Quad Flat Pack (RQFP) package used for the FLEX 10K<sup>®</sup> and APEX<sup>™</sup> product families. Starting in May 2003, Amkor's thermally enhanced quad flat package will supplement the current package sourced from ASAT. Amkor is a fully qualified assembly subcontractor for this package and Altera already ships other devices in this thermally enhanced package assembled at Amkor.

#### **Reason for Change:**

This change will further improve FLEX 10K and APEX product delivery.

#### **Products Affected and Traceability:**

All FLEX 10K and APEX products with RQFP package offerings are affected.

Amkor assembled packages can be identified via the "Korea" country of origin information molded on the bottom of the package and printed on the box label. (See Note 1)

<b>Country of Origin</b>	<b>Package Supplier</b>
Korea	Amkor
Hong Kong	ASAT

**Contact:**

For more information, please contact your local Altera® sales representative.

**Note 1:**

Amkor's MQFP PowerQuad package fully complies with Altera and JEDEC package outlines and thermal characteristics requirements. However, there is a difference in the visual appearance of the heat sink lids as illustrated in figure below.



**Amkor assembled package**



**ASAT assembled package**

MQFP PowerQuad® is a registered trademark of Amkor Technology, Inc.