



CUSTOMER ADVISORY

ADV1820



Transition to Laser Marking for Bare Die and Molded Flip Chip Ball Grid Array Packages

Change Description:

Intel Programmable Solutions Group ("Intel PSG", formerly Altera) is notifying customers of a transition from ink marking to laser marking for products in bare die (lidless) and Molded Thermal Composite Flip Chip Ball Grid Array (BGA) packages.

To improve marking quality and efficiency, these products will convert from ink marking to laser marking. The laser marking process is already qualified and used successfully to mark Intel PSG process since 2003.

Fig 1: Marking Change

Change From Ink Marking	Change To Laser Marking
 A photograph of a square chip with ink markings. The text on the chip reads: ALTERA, SAGXBB1D4F35C4N, F BCDAT1831A, TAIWAN, NCDAT51471, 310FA800.	 A photograph of a square chip with laser markings. The text on the chip reads: ALTERA, SAGXBB1D4F35C4N, F BCDAT1831A, TAIWAN, NABAT53201, 304FA800.

Recommended Action

Customers are being notified to take note of this marking process change. The component mark content and layout will remain the same. This change does not affect customer specific/custom top mark requirements.

Products Affected:

The list of affected OPNs can be downloaded in Excel form:

<https://www.intel.com/content/dam/www/programmable/us/en/pdfs/literature/pcn/adv1820-opn-list.xlsx>

Reason for Change:

Converting from ink marking to laser marking improves production efficiency of marking process. Additionally, laser marking is proven to result in more consistent quality of marking.

Change Implementation

Table 1

<i>Milestone</i>	<i>Date</i>
Date Conversion is in Effect	Now

Contact

For more information, please submit a Service Request at the [My Intel](#) support page.

Customer Notifications Subscription

Customers that have subscribed to Intel PSG's customer notification mailing list will receive the ADV document automatically via email.

If you would like to receive customer notifications by email, please subscribe to our customer notification mailing list at:

<https://www.intel.com/content/www/us/en/programmable/my-intel/mail-emailsub/technical-updates.html>

Revision History

Date	Rev	Description
10/05/2018	1.0.0	Initial Release

©2018 Intel Corporation. All rights reserved. Intel, the Intel logo, Altera, Arria, Cyclone, Enpirion, Max, Nios, Quartus and Stratix words and logos are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries. Other marks and brands may be claimed as the property of others. Intel reserves the right to make changes to any products and services at any time without notice. Intel assumes no responsibility or liability arising out of the application or use of any information, product, or service described herein except as expressly agreed to in writing by Intel. Intel customers are advised to obtain the latest version of device specifications before relying on any published information and before placing orders for products or services.