

# Forged to Stamped Lid Conversion for Monolithic FPGA Flip Chip Packages

XCN16004 (v1.5) June 26, 2017

Product Change Notice

#### **Overview**

The purpose of this notification is to announce the transition from "forged" to "stamped" lids for selected 31mm and 35mm monolithic flip chip package body sizes. Device-packages from Virtex®-4, Virtex®-7, Kintex®-7 FPGAs and Zynq®-7000 families will be included in the change. Lid material remains unchanged, as does fit and function. However, form (lid shape) will be slightly modified.

### Description

Xilinx will be transitioning selected monolithic flip chip packages for Virtex-4, Virtex-7, Kintex-7 FPGAs and Zynq-7000 families from forged to stamped lids. Lid material will remain Ni plated Cu and overall package thickness for all impacted part numbers will remain unchanged. Top surface of the stamped lid will be slightly smaller than that of the current flat top, forged lid.

This conversion is being done to standardize lid designs across Xilinx's flip chip package offerings. Stamped lids are widely used in the industry and as such, no special risks or considerations are associated with this change. Reliability and manufacturing performance is on par with that of forged lids.

## **Products Affected**

This change affects all speed, package, and temperature variations of "XC" commercial (C), industrial (I) and Defense "XQ" grade reflected in <u>Table 1</u> and <u>Table 2</u>. Any associated SCDs or EasyPath<sup>TM</sup> are also affected.

Device	Package-Pin	Body Size
XC4VFX40		2
XC4VFX60	FF(G)1152	
XC4VFX100		35mm
XQ4VFX60	EE1160	
XQ4VFX100	FF1152	

Table 1: Virtex-4 Devices-Packages FPGAs	Products Affected
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Device	Package-Pin	Body Size	
XC7K325T			
XC7K410T			
XC7Z035	FF(G)900	31mm	
XC7Z045			
XC7Z100			
XC7K420T			
XC7K480T	– FF(G)1156		
XC7VX330T			
XC7VX415T		35mm	
XC7VX485T	FF(G)1157		
XC7V585T	1		
XC7VX415T			
XC7VX485T	FF(G)1158		

#### Table 2: 7-series FPGAs and Zynq-7000 Devices-Packages Product Affected

### **Key Dates and Ordering Information**

Xilinx may begin cross-shipping products using both forged and stamped lids starting from January, 2018; please reference <u>XTP474</u> for specific schedules.

### Traceability

No change to any part ordering or top marking. Below is a representation of the lid change.

CURRENT POR: FORGED LID	NEW POR: STAMPED LID
XILINX®	XILINX®
KINTEXT7	KINTEX-7
XC7K325T	<b>XC7K325T</b>
FFG900AFT0601	FFG900AFT0601
DD1234567A	DD1234567A
6CES	6CES
TAIWAN	TAIWAN
123456789012	123456789012

Figure 1: Lid change representation

## **Qualification Data**

Qualification vehicles and results are shown in <u>Table 3</u>. Additional qualification data can be provided upon request.

#### Table 3: Qualification Test

Device	Package-Pin	TCB 1000 (-55C/125C)	Results
XC2V8000	FF(G)1152	0/25 x 3 lots	Passed
XC4VFX100	FF(G)1152	0/25 x 3 lots	Passed
XC7V585T	FF(G)1157	0/25 x 3 lots	Passed

## Response

No response is required. For additional information or questions, please contact Xilinx Technical Support.

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## **Additional Documentation**

FAQ (XTP474): Forged to Stamped Lid Conversion for Monolithic FPGA Flip Chip Packages

https://secure.xilinx.com/webreg/clickthrough.do?cid=f4783abc-d083-4cc2-9a75-5b1c954a16c2

## **Revision History**

The following table shows the revision history for this document.

Date	Version	Revision
4/18/2016	1.0	Initial Release.
4/25/2016	1.1	Removed Virtex-II product from Table 1.
5/2/2016	1.2	Removed Virtex-II references.
7/4/2016	1.3	Revised cross-shipping date and cut-over date code.
11/1/2016	1.4	Revised cross-shipping date and cut-over date code.
6/26/2017	1.5	Revised to update cross-shipping date and added the XTP474 for FAQ link.

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