



# Substrate Material Change for Virtex, Virtex-II, Virtex-II Pro, Virtex-4 and Virtex-5 FPGA Packages

XCN18002 (v1.0) February 5, 2018

Product Change Notice

## Overview

The purpose of this notification is to communicate substrate material change for Virtex®, Virtex®-II, Virtex®-II Pro, Virtex®-4 and Virtex®-5 FPGA packages.

## Description

The manufacturer of the current substrate material is discontinuing production of the substrate material. Therefore, Xilinx qualified new substrate material to continue supply and shipment of Virtex, Virtex-II, Virtex II-Pro, Virtex-4 and Virtex-5 FPGA packages. This enables Xilinx to better support long-term customer demand. There is no change in the fit, form or function with this change. The new substrate core and build up material have been qualified and shipping in many 7 series, ROHS Lead Free and UltraScale™ packages.

Xilinx will revise the corresponding material declaration data sheet (MDDS) to reflect the new material change (Refer to [www.xilinx.com](http://www.xilinx.com)).

## Products Affected

This change affects all speeds and temperature grades such as commercial / industrial “XC”, defense “XQ” and EasyPath™ “XCE” of Virtex, Virtex-II, Virtex II-Pro, Virtex-4 and Virtex-5 FPGA packages as defined in the tables below. Any associated specification control document (SCD) versions of the standard part numbers are also affected.

Table 1: Virtex-II Pro Devices-Packages

Device	Package-Pin	Device	Package-Pin
XC2VP2	FF(G)672	XC2VP50	FF(G)1517
XC2VP4			
XC2VP7			
XC2VP20	FF(G)896	XC2VP100	FF(G)1696
XC2VP30			
XC2VP7			
XC2VP40	FF(G)1148	XC2VP100	FF(G)1704
XC2VP50			
XC2VP20	FF(G)1152	XC2VP70	
XC2VP30			
XC2VP40			
XC2VP50			

Table 2: Virtex-4 Devices-Packages

Device	Package-Pin	Device	Package-Pin
XC4VSX55	FF(G)1148	XC4VFX12	FF(G)668
XC4VLX80		XC4VLX15	
XC4VLX60		XC4VLX25	
XC4VLX40		XC4VLX40	
XC4VLX160		XC4VLX60	
XC4VLX100		XC4VSX25	
XC4VFX60		XC4VSX35	
XC4VFX40	FF(G)1152	XC4VFX20	FF(G)672
XC4VFX100		XC4VFX40	
XC4VLX100		XC4VFX60	
XC4VLX160	FF(G)1513	XC4VLX15	FF(G)676
XC4VLX200		XC4VFX12	SF(G)363
XC4VFX100	XC4VLX15		
XC4VFX140	FF(G)1517	XC4VLX25	

Table 3: Virtex-5 Devices-Packages

Device	Package-Pin	Device	Package-Pin	
XC5VTX150T	FF(G)1156	XC5VFX100T	FF1738	
XC5VFX130T	FF(G)1738	XC5VLX110T		
XC5VFX200T		XC5VLX155T		
XC5VLX220T		XC5VLX110	FF1760	
XC5VLX330T		XC5VLX155	FF323	
XC5VSX240T		XC5VLX20T		
XC5VTX150T		FF(G)1759	XC5VLX30T	FF324
XC5VTX240T	XC5VLX30			
XC5VFX100T	FF1136	XC5VLX50	FF665	
XC5VFX70T		XC5VFX30T		
XC5VLX110T		XC5VFX70T		
XC5VLX155T		XC5VLX30T		
XC5VLX50T		XC5VLX50T		
XC5VLX85T		XC5VSX35T		
XC5VSX50T		XC5VSX50T		
XC5VSX95T		XC5VLX110		FF676
XC5VLX110		XC5VLX30		
XC5VLX155	XC5VLX50			
XC5VLX50	FF1153	XC5VLX85	FF(G)1760	
XC5VLX85		XC5VLX220		
		XC5VLX330		

**Table 4: Virtex-4 EasyPath Devices-Packages**

Device	Package-Pin
XCE04L6	FF1148
XCE04S2	FFG668
XCE04L10	FF(G)1513
XCE04L4	FF(G)1148
XCE04L8	FFG1148
XCE04F10	FF(G)1152

**Table 5: Virtex-5 EasyPath Devices-Packages**

Device	Package-Pin
XCE05T24T	FFG1759
XCE05L33	FFG1760
XCE05L22T	FF(G)1738
XCE05L11T	FF1136

**Table 6: Virtex-Q Defense-Grade Devices-Packages**

Device	Package-Pin
XQV100	BG256

**Table 7: Virtex-IIQ Defense-Grade Devices-Packages**

Device	Package-Pin
XQ2V1000	FG456
XQ2V1000	BG575
XQ2VP40	FG676
XQ2VP40	FF1152
XQ2VP70	EF1704
XQ2VP70	FF1704

Note: XQ2V1000 is post Last Time Buy device

Table 8: Virtex-4Q Defense-Grade Devices-Packages

Device	Package-Pin	Device	Package-Pin
XQ4VLX60	EF668	XQL4VFX100	FF1152
XQ4VLX25	FF668	XQL4VFX60	
XQ4VLX40		FF(G)1152	
XQ4VLX60			
XQL4VLX60		FF(G)1513	
XQ4VSX35		FF(G)668	XQ4VFX140
XQ4VFX60	EF672	XQL4VFX140	FF(G)1517
XQL4VFX40	FF672	XQ4VLX25	SF363
XQL4VFX60			
XQ4VLX100	FF1148		
XQ4VLX160			
XQ4VLX60			
XQ4VLX80			
XQ4VSX55			

Table 9: Virtex-5Q Defense-Grade Devices-Packages

Device	Package-Pin
XQ5VFX70T	EF665
XQ5VSX50T	
XQ5VLX110	EF676
XQ5VLX85	
XQ5VFX100T	EF1136
XQ5VFX70T	
XQ5VLX110T	
XQ5VLX155T	
XQ5VSX95T	EF1153
XQ5VLX110	
XQ5VFX100T	EF1738
XQ5VFX130T	
XQ5VLX220T	
XQ5VLX330T	
XQ5VLX30T	FF323
XQ5VFX200T	FF1738
XQ5VSX240T	

## Key Dates and Ordering Information

Xilinx will start shipping commercial / industrial “XC” devices 90 days after the PCN release. Estimated cut-over dates for defense-grade “XQ” devices are stated in “Frequently Asked Questions” XTP481. Any changes will be communicated through XTP481.

## Qualification Data

Xilinx successfully completed all necessary qualifications of the new substrate core and build up material. All the necessary qualification data will be available upon request.

## Response

No response is required.

**Important Notice:** Xilinx Customer Notifications (XCNs, XDNs, and Quality Alerts) can be delivered via e-mail alerts sent by the Support website (<https://www.xilinx.com/support>). Register today and personalize your “Documentation and Design Advisory Alerts” area to include Customer Notifications. Xilinx Support provides many benefits, including the ability to receive alerts for new and updated information about specific products, as well as alerts for other publications such as data sheets, errata, application notes, etc. For information on how to sign up, refer to [Xilinx Answer Record 18683](#).

## Revision History

The following table shows the revision history for this document:

Date	Version	Description of Revisions
02/05/18	1.0	Initial Release

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