



Additional Information for XCN08014: Q&A

XTP036 (v1.0) October 20, 2008

Q1. Why is Xilinx standardizing to a 2-layer package substrate for Spartan-3A FT256 product?

- A. The 4-layer FT256 package has two additional substrate layers. These additional layers were found to not be functionally necessary. Standardizing to a 2-layer package substrate will allow Xilinx to have better continuity of supply due to substrate manufacturing standardization.

Q2. Has Xilinx been in production with a 2-layer package substrate for FT256 Spartan product before this?

- A. Xilinx has been in production using 2-layer FT256 substrates for many years starting with the Spartan®-IIE family. Below is a list of current Spartan family product that use 2-layer FT256 substrates:

Table 1: 2-Layer Substrate FT/FTG256 Parts

Family	Part Number	Family	Part Number
Spartan-3A	XC3S700A	Automotive Spartan-3A	XA3S200A
	XC3S1400A		XA3S400A
Spartan-3E	XC3S250E	Automotive Spartan-3E	XA3S250E
	XC3S500E		XA3S500E
Spartan-3	XC3S200	Automotive Spartan-3	XA3S200
	XC3S400		XA3S400
	XC3S1000		XA3S1000
Spartan-IIE	XC2S50E	Automotive Spartan-IIE	XA2S150E
	XC2S100E		XA2S200E
	XC2S150E		XA2S300E
	XC2S200E		
	XC2S300E		
	XC2S400E		

Q3. What are the differences between the 4-layer and 2-layer substrates?

- A. Due to the removal of two substrate layers for substrate manufacturing standardization, the 2-layer substrate thickness is decreased by 0.056 mm. Both the 2-layer and 4-layer substrates meet the maximum package outline height specification.

Q4. What is the effect in performance, power, or thermal characteristics?

A. There is no negative impact to any of these characteristics.

Q5. Do you have the qualification data for the 2-layer substrate?

A. The qualification report (RPT112) for 2-layer package substrates with Spartan-3A is available at: <https://secure.xilinx.com/webreg/clickthrough.do?cid=113468>

Q6. Can 4- and 2-layer substrate parts be mixed in a lot?

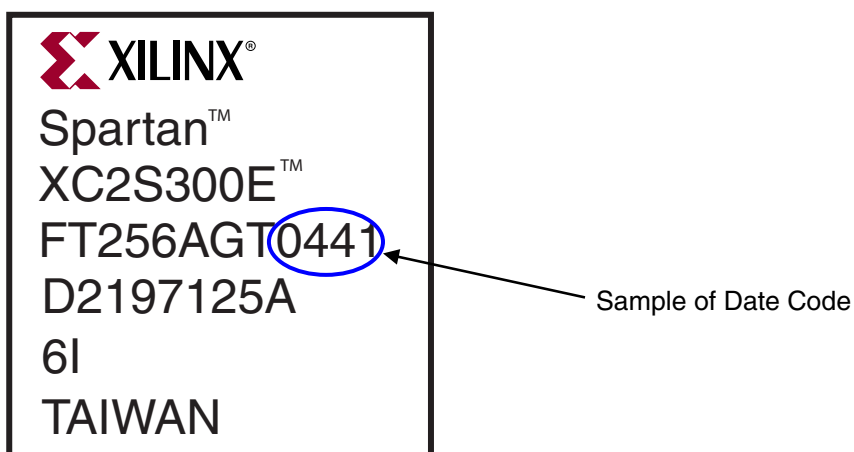
A. No, each Xilinx manufacturing lot will consist of either 4-layer or 2-layer substrates.

Q7. Do I have the option to order 4-layer or 2-layer substrates only?

A. No. After January 10, 2009, Xilinx will begin cross-shipping with both 2- and 4-layer substrates. There will be no separate ordering code for 4- or 2-layer substrates.

Q8. How do I know whether I have the 2-layer substrate after January 10, 2009?

A. Xilinx will update this document with the exact cutover date codes to 2-layer substrates. The Date Code can be found on the package top mark, as indicated below:



Revision History

The following table shows the revision history for this document.

Date	Version	Revision
10/20/2008	1.0	Initial Xilinx release.