



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.

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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?

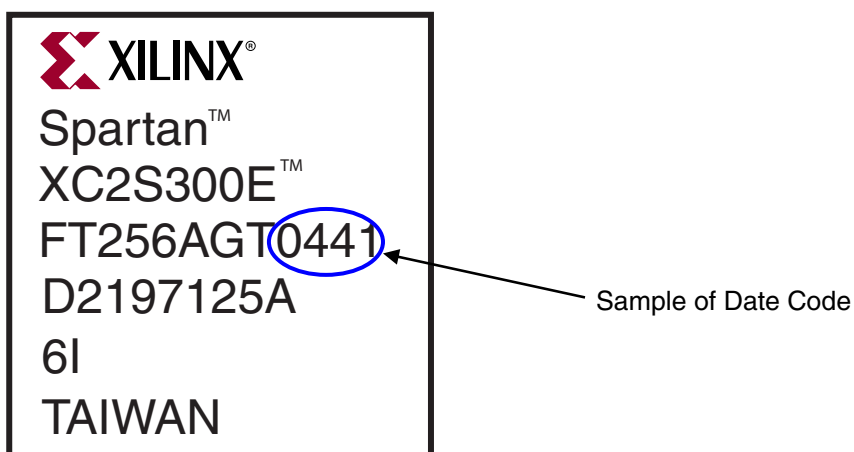
A. No, each Xilinx manufacturing lot will consist of either 4-layer or 2-layer substrates.

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.